

SEP 26 1927

MOTOR AGE

A Chilton Class Journal Publication
Published Weekly September 22, 1927

No Difference of Opinion *When Supremacy is so Outstanding*

In its repertoire of brilliant abilities, the New Hudson Super-Six asserts its supremacy in vivid performance facts that stand free and clear of opinion or debate.

The basis of this great Hudson ca-

pacify is a new companion invention to the Super-Six principle which turns waste heat to power. Together they combine the highest efficiency in power generation and transmission ever achieved within our knowledge.

HUDSON MOTOR CAR COMPANY



"Difference of opinion makes horse-racing," is the immemorial proverb and auspice of the sport of kings. Yet, for Man O' War, who was indifferent to all but the victorious goal, king and stable boy rise to agree there was no difference of opinion when that super-horse faced the barrier.

HUDSON-ESSEX



"I wanted piston rings installed to stop Oil-Pumping and Blow-By. You told me these would do it just as well as PERFECT CIRCLES. But they haven't done it. Now, what are you going to do about it?"



*Compression
Type, 30c*



*Oil-Regulating
Type, 60c*

For each cylinder you should use one PERFECT CIRCLE Oil-Regulating ring and two PERFECT CIRCLE Compression rings. This combination constitutes the finest in piston ring equipment; stops Oil-Pumping and Blow-By; increases compression and power, and insures thorough lubrication.

PERFECT CIRCLE PISTON RINGS

THE ONLY WAY

*to get
Perfect Circle
Performance*

WHEN your customers have piston rings installed, they expect to get PERFECT CIRCLE performance—for PERFECT CIRCLE in its advertising to the car owner, has told them what good piston rings really do for a motor.

Blow-By, generally the cause of motor fumes in closed cars, can be eliminated at its source *only* by compression rings of such infinite accuracy as PERFECT CIRCLES.

And only the PERFECT CIRCLE Oil-Regulating ring, with its exclusive groove-and-slot combination, can give the kind of oil-regulation which insures good oil-mileage and longer life for cylinders and pistons, in the modern automobile motor.

You'll avoid "comebacks" and *protect your own standing* by installing complete sets of PERFECT CIRCLE Oil-Regulating and Compression rings in every job you have. By advertising to the car owner, PERFECT CIRCLE has assumed its share of responsibility for results, instead of shifting the entire burden to your shoulders.

There's a nearby jobber from whom you can get prompt service on PERFECT CIRCLES.

The Perfect Circle Company
Hagerstown, Indiana

This Fan Belt is Built Especially to Build Good-Will

IT'S a Farran-oid—the belt that keeps fans on the job, even with the new high-speed motors!

It has no tendency to split, because it is woven tight at the edges, loose in the center, and flexes naturally over the crown of the pulleys.

This is only one of *many* reasons why dealers like to sell Farran-oid Belts—they're effective builders of good-will!

Have you the new Farran-oid catalog? Use the coupon—today!

For You!

THE FARRAN-OID COMPANY, Akron, Ohio

Farran-oid Products



THE FARRAN-OID COMPANY
Akron, Ohio

M.A.

Please send me the new Farran-oid catalog.

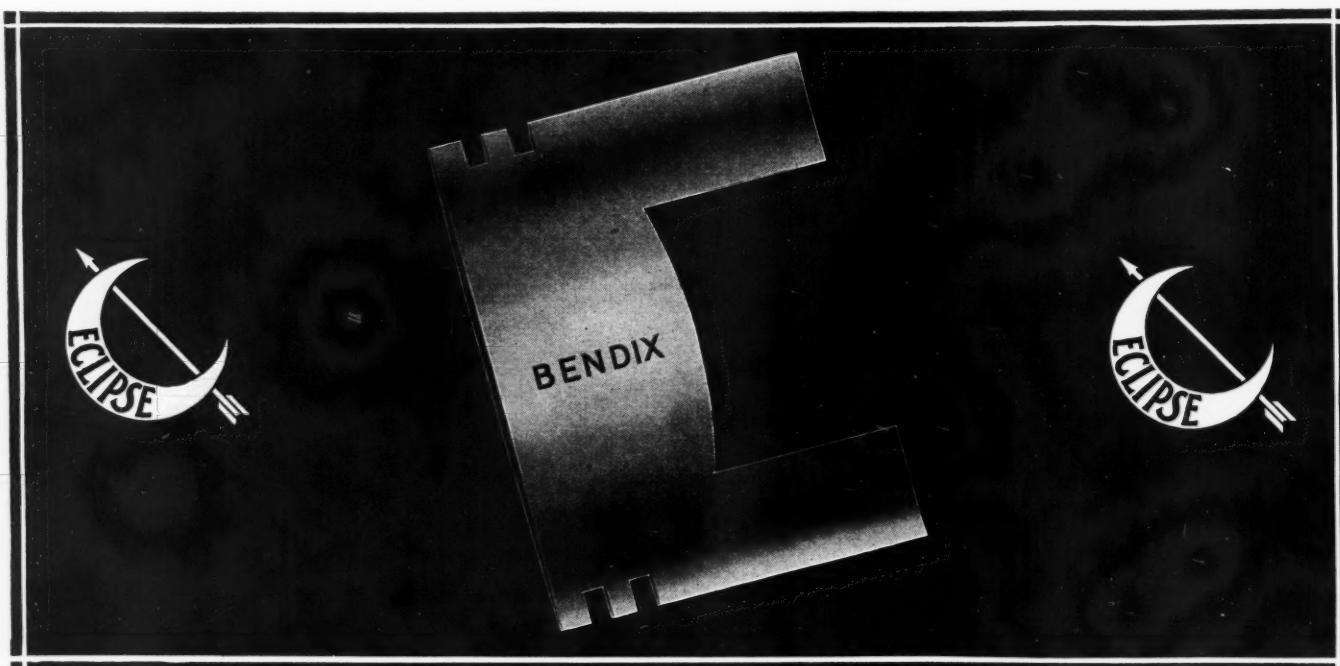
Name

Address

.....

ECLIPSE

BENDIX DRIVE



ALWAYS A SATISFACTORY JOB

With This Genuine Sleeve



Service Station Stocks

The new Eclipse Bendix Service Station Stocks have been developed to enable the repairman to give complete and dependable service on a maximum number of cars with a minimum investment. Service Station Stocks No. 1 enables the servicing of fully 75% of the cars in service today. Service Station Stock No. 2 is even more comprehensive, and enables the servicing of more than 85% of the cars. Fill out and mail coupon below for complete information.

Eclipse Machine Company
Elmira, New York
Department 7

We are interested in the new Eclipse Bendix Service Station Stocks. Please send complete information, and names of nearest jobbers to

Name _____

Address _____

City _____

THE Eclipse Bendix Service Sleeve assures a completely satisfactory repair job and one that can be performed with the least amount of effort. Only a hammer and a blunt chisel are needed to install it easily and quickly.

Like all genuine parts for the Eclipse Bendix Drive, the service sleeve is protected against rust with a coating of zinc. Four sizes fit all types of drives. Eclipse Bendix Service Sleeves always give the dependable service demanded in starting equipment.

Your jobber can furnish you with an assortment of repair sleeves, ordered separately, or you can obtain them as a part of the Eclipse Bendix Service Station Stocks, which will allow you to give complete service on practically any make or model car.

ECLIPSE MACHINE COMPANY
ELMIRA, NEW YORK

Eclipse Machine Co., East Orange, N. J. • Eclipse Machine Co., Ltd., Walkerville, Ont.

MOTOR AGE

Vol. LII

Reg. U. S. Pat. Off.
Established 1899

No. 12

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MOTOR AGE is published every Thursday by
CHILTON CLASS JOURNAL COMPANY

Chestnut and 56th Streets, Philadelphia, Pa.

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Cleveland—540 Guardian Bldg., Phone Main 6860
Indianapolis—519 Merchants Bank Bldg., Phone Riley 3212

Owned by United Publishers Corporation, 239 West 39th Street, New York; ANDREW C. PEARSON, Chairman, Board of Directors; FRITZ J. FRANK, President; C. A. MUSSELMAN, Vice-President; F. C. STEVENS, Treasurer; H. J. REDFIELD, Secretary.

SUBSCRIPTION RATES: United States, Mexico and U. S. Possessions, \$3.00 per year; Canada, \$5.00 per year; All other countries in Postal Union, \$6.00 per year; Single Copies, 35 cents.

COPYRIGHT 1927, CHILTON CLASS JOURNAL COMPANY

Member of the Audit Bureau of Circulations
Member, Associated Business Papers, Inc.

Subscriptions accepted only from the Automotive Trade
Entered as Second Class Matter, June 2, 1927, at the Post Office at Philadelphia, Pa.
under Act of March 2, 1879

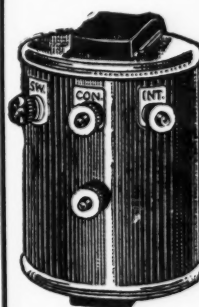


Volts or Jolts?

You must have one or the other.

It takes an ignition spark with real voltage to fire the high speed engine of today when the driver "steps on it."

Test the length, which means the voltage, of a Primax spark. Then ask an automotive engineer what is needed for *speed*.



THORDARSON PRIMAX IGNITION

THORDARSON ELECTRIC MANUFACTURING CO.
Transformer Specialists since 1893
WORLD'S OLDEST AND LARGEST EXCLUSIVE TRANSFORMER MAKERS
Chicago, U.S.A.

MAIL THIS COUPON NOW!

THORDARSON ELECTRIC MFG. CO.
500 W. Huron St., Chicago, Ill.

Send complete sales information and net trade prices on Primax Ignition Transformers.

Name

Address.....

(1)

More and more motorists are playing it safe by demanding the All-Steel Body on the cars they buy—more and more manufacturers are playing it safe by putting it on the cars they sell

. . .

EDWARD G.

BUDD

MFG. CO.

Philadelphia and Detroit



Originators of the All-Steel Full-Vision Automobile Body

The COMMANDER'S SPEED

will speed up YOUR PROFITS

WHEN two Commander Roadsters romped home in first and second places* in the A. A. A. stock car race at Atlantic City on Labor Day—averaging 85.95 and 84.58 miles per hour—they decisively proved that:

The Studebaker Commander, now \$1495, will out-perform any car selling for less than \$2500!

Speedway victories merely dramatize Studebaker's abundant power for highway driving, its eager acceleration in traffic. Thrilling performance is one of many reasons so many prospects become Studebaker owners. The Studebaker Commander out-sells the combined totals of all other cars in the world of equal rated power.

The valuable Studebaker-Erskine Six franchise may be available in *your* territory! Write or wire today for complete and confidential information. Address Department 51, The Studebaker Corporation of America, South Bend, Indiana.

*Chrysler "72" was third; Buick Master 6, fourth; Nash Advanced Six, Star 6, Chrysler "70", and Hudson also competed.

STUDEBAKER

ERSKINE SIX



Two franchises in one—offering cars from \$895 to \$2250



32,983 Cars

in July and August

The first two months the new Nash models have been on the market have been the *greatest two months* Nash ever had.

Despite the natural handicap of getting into volume production on 3 entirely new series, July and August shipments totalled *32,983 cars*.

That is equal to nearly 25% of total Nash production for the whole of 1926—the biggest previous year in Nash history.

Everywhere Nash dealers are getting a bigger and bigger share of the total business in their territories. And no good dealer today can afford to overlook the chance of getting a Nash contract.

In price-range and in product the Nash line has the advantage over competition.

When you sell the Nash line you sell *ALL SIXES*—with *7-BEARING* motors. And the lowest priced series you can offer to your market at about the price others ask for a Four.

Write quickly about territory and you'll get a quick reply. Address the *Sales Department*, The Nash Motors Company, Kenosha, Wisconsin.

NASH

Leads the World in Motor Car Value



WHEN the higher priced product outsells the cheaper — there is not much more to be said.

Ball Bearings outsell other anti-friction types two to one.

THE NEW DEPARTURE MANUFACTURING CO.

Bristol, Connecticut

Detroit

San Francisco

Chicago

New Departure
Quality
Ball Bearings

1928

Four Great Eights: 75, 80, 85, 90

Four distinctive series—all *Eights-in-line*—
14 custom-body designs—a great variety of colors



Again Gardner does the unusual—and puts behind its dealer organization a great sales advantage!

More than three years ago, Gardner pioneered the *Eight-in-line*—and gave to America a brand-new kind of motoring . . . satisfying, thrilling, delightful as coasting on air

Two years ago, stock Gardner *Eights-in-line* set eight great performance records that still remain unbroken or unequalled.

Last year, Gardner introduced America's first European-type *Eight-in-line*—presented the lowest-priced enclosed *Eight-in-line* on the market—and provided a beautifully designed, splendidly built *Eight-in-line* at the price of a Six.

And up went Gardner sales!

Now Gardner is first to standardize the *Eight-in-line* field! Gardner now builds four complete series of distinctive *Eights-in-line*. In 14 custom-body designs and a great variety of colors! At prices within easy reach of every prospective automobile owner above the 4-cylinder class!

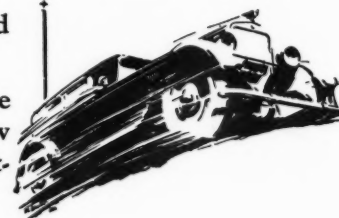
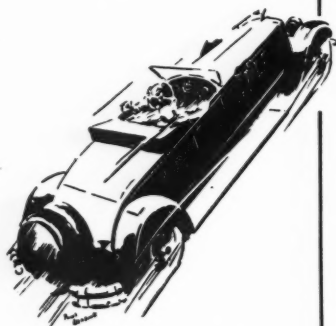
Which means that Gardner sales are going to soar again!

For this is the age of the *Eight-in-line* . . . the buying trend is toward the *Eight-in-line* . . . and Gardner dealers now have a complete line of *Eights-in-line* at prices ranging from \$1475 to \$2475.

Write, wire or telephone for the whole Gardner story!

THE GARDNER MOTOR CO., INC., ST. LOUIS, U. S. A.

Builders of *Eights-in-line* Exclusively



The
GARDNER
EIGHT-IN-LINE

—that distinctively different motor car

MOTOR AGE

VOLUME LII

Philadelphia, Pa., Sept. 22, 1927

NUMBER 12

Will Make Drive to Sell Hand Tools

Leading Manufacturers Favor
a Broader Wholesale
Distribution

A. E. A. TO ACT

NEW YORK, Sept. 22—A drive for more intensive wholesale distribution of hand tools was launched at a meeting of several leading manufacturers of these products held last week in Pike, N. H. It was strongly recommended that jobbers engage a specialty salesman who would operate on a commission basis. Measures for encouraging sales of hand tools by regular jobbers' salesmen were also recommended.

It is expected that the Automotive Equipment Association will hold a meeting on the opening day of the Chicago show in November for the purpose of completing the hand tool sales program. Meanwhile the Shop Equipment Division of the A.E.A. has been asked to issue a bulletin to all members giving the results of the meeting.

Those present recommended net prices in catalogs rather than present list prices with discounts. Much consideration was given to the volume of sales now being made by peddlers.

Harry G. Moock of the A.E.A., who was present with Martin Goldman of the Shop Equipment Division, was strongly in favor of the more intensive methods of selling hand tools.

Among the companies represented were Stevens-Walden-Worcester, Inc., Billings & Spencer Co., Prentiss Vise Co., Watervliet Tool Co., Inc., Bonney Forge & Tool Works, Stanley Co. and Fleming Machine Co.

To Manufacture Alemite

CINCINNATI, Sept. 20—Cincinnati Ball Crank Co. has completed negotiations with the Bassick Mfg. Co. whereby it will manufacture all high pressure guns and other pressure lubrication units under patents of the Bassick company. In making its announcement, the Cincinnati company says it is the only company at the present time having this license arrangement. The Balcrank type D high pressure lubricator and the Balcrank line of high pressure nipples will be manufactured under this license in addition to Balcrank patents and patents pending on these products.

Studebaker Sends Advertising Manager on European Trip

SOUTH BEND, Sept. 22—M. F. Rigby, advertising manager of the Studebaker Corp. of America, will sail for Europe tomorrow to attend the International Motor Show at Paris and the Olympia Show at London. Later Mr. Rigby will visit the Studebaker-Erskine distributors in the British Isles, France, Holland, Belgium and Germany, and will make an intensive study of automobile advertising in Europe. He will return to the United States in November.

It has not been uncommon for engineers, export managers, production, sales and other executives of American automobile companies to go abroad for an eyefull and an earfull at the time of the principal European shows. The advertising manager, one of the most active executives at the shows in this country, stays at home and gets his foreign impressions second-hand.

Studebaker's action in sending Mr. Rigby overseas is encouraging evidence of the growing recognition of the importance of the advertising manager in the broad program of a company's development.

Graham Assistant to John N. Willys

TOLEDO, Sept. 21—Appointment of George M. Graham, widely known automotive executive, as assistant to John N. Willys, president of Willys-Overland, Inc., is announced by factory executives today.

It was with Willys-Overland Co. in the early days that Mr. Graham originally entered the motor car industry. Subsequently Mr. Graham became vice-president of the Pierce-Arrow Motor Car Co. and later served in the same capacity with Chandler Motor Car Co.

Serious illness in Mr. Graham's family necessitated his resigning from Chandler. He has since been inactive.

Ford Buying Para Rubber Plantation

Deal, Not Yet Closed, Bears
Out Belief He Will Be
Big Tire Maker

HAS FACILITIES

NEW YORK, Sept. 22—Further indication of the plans of Ford Motor Co. for the manufacture of its own tires and rubber products, is seen in the reported purchase by the company of 1,200,000 acres of rubber land in Para, Brazil. An additional 2,800,000 acres will be bought if the company is successful in closing contracts with Para officials.

The company would place 50,000 laborers in Tapajez and would build a railroad across Para as part of its development, the project to get under way within two months. Complete facilities for handling rubber would be installed and the product would be brought to the United States in Ford ships as return cargoes following deliveries of cars and parts at South American ports.

While Akron rubber factories have orders booked in substantial volume for tires to equip the new Ford cars, it is reported here that the Highland Park plant soon will be producing casings and tubes on a fairly large scale. Several months ago advices from Detroit were to the effect that Henry Ford's manufacture of tires was emerging from the experimental stage. Now he is believed to be ready to launch himself as an important factor in the tire manufacturing field.

In recent months tire production by the company has risen as high as 500 daily as experimentation went forward, the later product being used as equipment on cars. No statement was made by the company that it was using its own tires as part of the regular tire equipment and the fact escaped attention in view of the large production and wide distribution of the cars.

Buick Sales Set Record

FLINT, MICH., Sept. 19—Buick sales for July and August, 1927, shattered all records in Buick history, C. W. Churchill, general sales manager of the Buick Motor Co., announced today. Deliveries are still accelerating at a rate which taxes the production capacity of the Buick factories, Mr. Churchill added.



A Study In Black and White

Here is window display number 9. This one comes to us from Edwards Motor Co., Milwaukee. The firm, as you will note, sells the Dodge. This window was designed by an artist, a man who knew that the fewer the number of objects there are in a window, the more effective the display will be

Crosses Continent In 5 Days 3 Hours

NEW YORK, Sept. 19—Setting a new record for trans-continental runs by a solitary driver, Chester Killmeyer piloting a standard Whippet roadster has just completed a trip of 3205 miles from Sacramento, Cal., to New York City in five days, three hours, and 47 minutes.

Starting from Sacramento at 2.08 a. m. Friday, Sept. 2, Killmeyer arrived in New York at 8.55 a. m. Wednesday morning. He was officially checked at the start and finish as well as along the route by Western Union. Averaging 650 miles a day he halted at important towns along the route just long enough to snatch a few hours' rest.

The car, a stock Whippet roadster in every respect except for the installation of an extra gasoline tank so that 20 gallons of fuel could be carried, was purchased from the Willys-Overland dealer in Sacramento.

Adopt \$2 Inspection

ROCHESTER, N. Y., Sept. 20—Twenty-eight garage dealers here have united in a joint advertising campaign featuring completion automobile inspection for \$2. In a full page newspaper advertisement with an illustration of an automobile, the parts inspected for the service charge are named and pointed out on the automobile with arrows. They include clutch, transmission, universal, battery, differential, brakes, springs, steering gear, coil,

distributor, motor, fan and belt, head-lights, carburetor, generator, wheel alignment and tires.

"Trainload" Collins' Boys Buy Western Company

SEATTLE, Sept. 22—A famous name in automotive circles was brought to the Pacific Northwest in the recent transaction involving the sale of the R. Knox Roberts Motors Co. interests, both in Seattle and Portland, to the Collins Brothers Co. The entire control of the Oakland-Pontiac retail business under the factory franchise in these two cities now rests in the hands of the new organization.

The purchase was made by Wilbur H. Collins on behalf of himself and his brothers, Richard H. Collins, Jr., and Jack H. Collins. The three brothers are the sons of R. H. Collins, who, while sales manager of the Buick factory, was nationally known as "Trainload" Collins.

Blind Salesman Finds Car Selling Profitable

Trenton, N. J., Sept. 21—E. C. Briner, Princeton, N. J., is the only blind automobile salesman in this section. He has been selling automobiles for more than a year and finds it profitable. Briner has been blind since youth.

GM Overseas Sales Gain 14.9 Per Cent

NEW YORK, Sept. 19—In the first six months of this year the sale of General Motors cars to overseas dealers was the largest in any half year in history, according to Alfred P. Sloan, Jr., president. The total in the six months ending June, was 92,452 cars and trucks, compared with 63,797 in the first half of 1926, an increase of approximately 14.9 per cent. Sales in the first half of this year exceeded those of the last half of 1926 by 37,458 cars, or more than 88.1 per cent.

Has New Memphis Plant

MEMPHIS, TENN., Sept. 20—The zone and parts department office of the Chevrolet Motor Co. has just moved into a newly completed brick, steel and concrete structure at 395-397 South Front St.

It will have the shipment of parts for Arkansas, Mississippi, Louisiana and parts of Tennessee, Kentucky and Missouri. A \$250,000 stock will be carried.

James H. Robinson

SPOKANE, WASH., Sept. 21—James Holton Robinson, for the past four years territory man for Blackwell Motor Co., Marmon and Reo distributors, died following an operation. He was 48 years old. Previous to coming to Spokane he was with the Reo distributor in Great Falls, Mont., for five years.

The Six-Cylinder Ford

"Always a year or two ahead." When the single-cylinder car was "it," Henry Ford produced a double-cylinder opposed motor, more powerful and at a lower price.

When the automobile trade finally awakened to the possibilities of the two-cylinder opposed motor, Mr. Ford produced a four-cylinder car at \$2,000 that was in a class by itself, the public having been taught to believe that such a car could only be produced at a fabulous price.

And now, having exhausted the possibilities of the four-cylinder car in a touring car class, he has introduced it into the Runabout class, and in addition offers a six-cylinder car that is proportionately as far in advance of all competition as his first double opposed motor.

This is a wonderful car.

First, its six cylinders, with 40 horsepower, give a latitude of speed never before accomplished in a car of its class and weight, 2,000 pounds. From four miles per hour on a high-gear up to 50 miles.

While one cylinder of this car will develop sufficient power to drive it along an ordinary asphalt pavement, the whole six cylinders inspire the driver with the confidence that there is an enormous latent energy in his motor, ready for any new demand without overloading the motor, making it the easiest controlled and most flexible automobile motor ever built.

When you have seen this motor in operation you will fully appreciate that we have the smoothest running automobile motor in the world.

Price, \$2500.00

The Ford Four-Cylinder Runabout

It is a fact that thousands of these cars are in course of construction.

Like all Ford cars, this one is a radical departure from previous and popularly-accepted designs, and there is a reason behind every radical idea.

Henry Ford built a four-cylinder engine for his Runabout with fewer parts than the old-fashioned single-cylinder engine had, and the Ford Motor Co. have an enormous factory that does nothing but build motors for this Runabout, with a capacity of 100 complete engines every day.

The whole thing is very simple when you go about it right.

This is why we can build the Ford four-cylinder Runabout for less than \$500.00.

**We are making 40,000 cylinders,
10,000 engines,
40,000 wheels,
20,000 axles,
10,000 bodies,
10,000 of every part that goes into the car.**

Think of it! Such quantities were never heard of before. We buy 40,000 spark plugs—10,000 spark coils—40,000 tires—all *exactly alike*.

The first Runabout (Model A) we built cost \$30,000—yet we sold duplicates of that model for \$750.00.

It is the quantity that counts.

Ford Motor Company, Detroit

Member American Motor Car Manufacturers' Association, Chicago

Branches: 147-149-151-153 Columbus Ave., BOSTON; 1723 Broadway, NEW YORK; 727 Main St., BUFFALO; Broad and Buttonwood Sts., PHILADELPHIA; 1413 Michigan Ave., CHICAGO; CLEVELAND and KANSAS CITY

CANADIAN TRADE supplied by FORD MOTOR COMPANY of Canada, Ltd., Walkerville, Ontario

Three Models Are Added to LaSalle

Cars Are Sedans Mounted on 134-inch Wheelbase; 15 Units in Line

DETROIT, Sept. 22—Cadillac Motor Car Co. has announced the addition of three models to the LaSalle line, mounted on a 134 in. wheelbase. They consist of a seven-passenger sedan at \$2,795, an "Imperial" five-passenger sedan listing also at \$2,795, and an Imperial seven-passenger sedan at \$2,895. The two seven-passenger sedans fulfill the need for seven-passenger models on the LaSalle line, while the long wheelbase five-passenger model is exceptionally roomy.

These additions give the LaSalle line a total of 15 body models, which in addition to the Fisher custom line includes four models by Fleetwood, as follows, all being on the 125 in. wheelbase:

Stationary Coupe	\$3,600
5-Pass Sedan	3,800
Town Cabriolet	4,500
Transform. Town Cab	4,700

Detailed body changes have also been made in the LaSalle bodies. Instead of the 12 wide louvres formerly used, the hood now has 28 narrow louvres, these being placed farther back on the hood. Side ventilators have also been incorporated in the front compartments, these being located near the floorboards and operated by hand levers. Sun visors are now of opaque glass instead of the leather covered type formerly used. Cushion springs have been lightened to increase riding comfort by adding resiliency.

Features of the new Imperial sedans are that they may be converted into limousines by raising the glass partition between front and rear compartments. Upholstery is mohair, with leather in front compartment optional. Standard equipment is similar to that used in the 125 in. wheelbase cars.

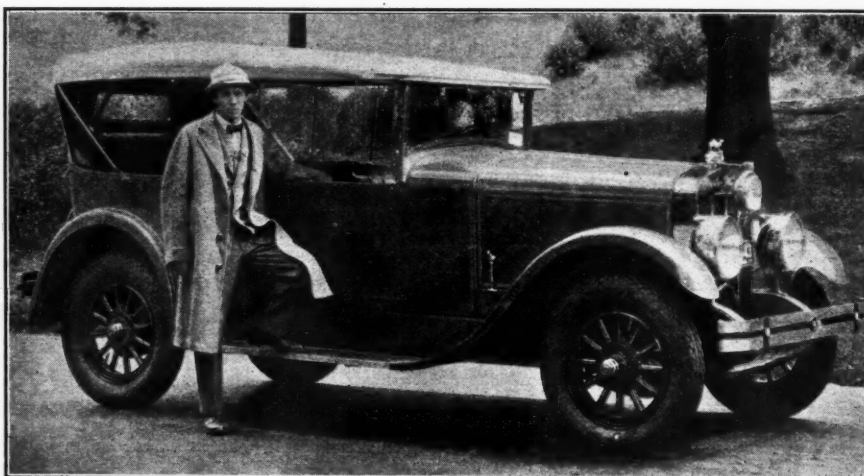
Whippet Non-Stops 12,000 Miles in 720 Hours Run

TOLEDO, Sept. 22—In a non-stop run lasting 30 days and nights, a standard Whippet roadster driven by 331 different drivers, covered a distance of 12,008 miles in 720 hours, according to figures just released by Willys-Overland, Inc.

After traversing the major portions of New York State and northern Pennsylvania the gruelling tests were finished at Ithaca, N. Y., where the car was driven five miles around the half-mile dirt track in 6½ minutes.

Garner Buys Into Mountjoy Co.

SAN ANTONIO, TEXAS, Sept. 22—C. L. Garner, formerly assistant general sales manager of the Republic



Buys Seventh Franklin

Here is Levi F. Noble, government geologist, who is mapping Death Valley. Water is scarce in the desert and because Mr. Noble doesn't like camels, he uses Franklins. This is his seventh since 1916

Gear Co. of Detroit, has recently purchased an interest in the C. H. Mountjoy Parts Co., and removed to this city.

Automotive Electrical Association Has Meeting

SHAWNEE-ON-DELAWARE, PA., Sept. 19—Standardization of bus electrical equipment and the further development of the activities and membership of the Field Division were the major topics discussed at the summer meeting of Automotive Electrical Association, held here Sept. 12 to 14.

In connection with the activities of the Field Division, a committee was appointed to formulate a program for the future activities of this group. A re-issue of the Universal Parts Catalog, published for the first time in February of this year, also was approved by the association at its summer meeting.

GM Stockholders Approve Split-up

WILMINGTON, DEL., Sept. 17—Stockholders of General Motors Corp. at a meeting here today approved the 2-for-1 split-up of the common stock and changes in authorized shares previously recommended by the directors. Exchanges of old for new stock will begin Sept. 15.

Common stock outstanding after the split-up will number 17,400,000 shares of \$25 par stock. Authorized common will be increased 10,000,000 shares common, no par, and 30,000,000 shares, par \$25.

Other changes authorized by the stockholders include a reduction in the number of 6 per cent preferred and debenture stocks authorized to equal the number of those issues now outstanding.



And That's No Bull!

It's a bison or buffalo, made of gold. This prize, symbolic of strength and endurance, was won by (3) stock Chryslers in a 1500-mile-run in Poland. The best that Europe had to offer was not good enough to beat the "70's"

"Be-A-Life-Saver" Bay State Slogan

Stringent Ruling Applies to
Any Unable to Show Safety
Tag Sept. 24

BOSTON, Sept. 12—Inaugurated by a proclamation issued Sept. 6 by Governor Alvan T. Fuller and backed by automobile and civic organizations throughout the state, the Massachusetts "Be-A-Life-Saver" campaign is in full swing, it was announced today by Percy E. Chamberlin of the Greater Market Development of the Automotive Equipment Association.

The inspection period, as proclaimed by Governor Fuller is from Sept. 12 to 24 inclusive. During this time every motor vehicle in the state is expected to drive into one of the official inspection stations for an inspection of the safety factors of the vehicle—horn, lights, brakes and steering mechanism.

The inspections will be made free of charge by 1450 stations appointed by Registrar of Motor Vehicles Frank A. Goodwin. Every car and truck in good condition, or which has been made so, will be given an official sticker. After Sept. 24 any car or truck owner who does not display a sticker will be subject to arrest, if any of these safety factors are found defective.

The plan in use in Massachusetts is identical with that recently used in New York State. It was originated by Greater Market Development of the Automotive Equipment Association, which is conducting a drive to get every state to adopt the idea of periodical inspection of all motor vehicles. Massachusetts is the second state to institute the campaign. It is expected that at least 750,000 motor vehicles will be inspected during the campaign.

Falcon-Knight Wins Stock Race at Milwaukee Fair

MILWAUKEE, Sept. 22—First prize in the 25 mile Midwest stock car race staged at the state fair grounds was awarded to a Falcon-Knight roadster, driven by Carl Marchese who covered the one mile dirt track at an average speed of 61.5 miles per hour.

The winning car, a strictly stock model, was broken in for but 175 miles after it had been taken off the dealer's floor just a short while before it was entered.

More than 5000 persons witnessed the race in which the Falcon-Knight scored a victory in its initial race appearance.

Dain Moves to New Hampton

NEW HAMPTON, IA., Sept. 22—Frank Dains' auto accessory factory located at Marshalltown, is to be moved to this city, occupying the Johnson building, near the Great Western yards, within a few weeks. The plant will be enlarged.

Gee Whiz! A Quiz? Yes, 'Tis—Get Biz!

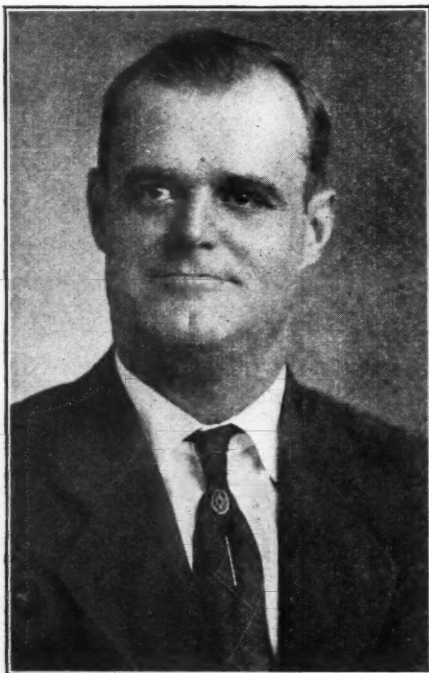
THIS is No. 17 in a series of quizzes regarding things of interest to the readers of MOTOR AGE. The questions cover a wide range of automotive facts—historical, racing, electrical, mechanical, legal, slogans, etc., etc., and so forth and so on. If you would like to see some of your own questions in future issues, send them along with their answers to the Quiz Editor, MOTOR AGE, Chestnut & 56th Streets, Philadelphia, Pa. No prizes are offered for the answers to these questions.

1. What is "one horsepower?" (Asked by G. T. H., Mt. Carmel, Pa.)
2. Give details of the world's longest automobile race, which millions of people followed through the trade press and the newspapers. (Asked by G. E. Lantz, Henshaw Motor Co., Boston Mass.)
3. What is the electrical equivalent of one mechanical horsepower? (Asked by Clarence E. Baker, Little Creek, Del.)
4. What manufacturer of garage equipment recently published a handbook entitled "Car Washing for Profit?" (Asked by Matt Dittman, Philadelphia, Pa.)
5. Is a burned-out armature necessarily a total loss? (Asked by D. C. Taylor, Philadelphia, Pa.)
6. What is meant by a LAPS system? (Asked by David Preston, Detroit, Mich.)
7. What is torque? (Asked by L. C. W., Philadelphia, Pa.)
8. How can one tell the ratio of a pair of rear axle worm gears? (Asked by Howard Everett, Broomall, Pa.)
9. What pressures are developed in hydraulic brakes? (Asked by Joe Cunningham, Melrose Park, Pa.)
10. Heat is needed for the vaporization of present day fuels, but what happens when the heat applied to the mixture is excessive? (Asked by G. S. Ewing, Tacony, Pa.)

ANSWERS TO SEPT. 15 QUESTIONS *

1. The boiling point of denatured alcohol is 171 degrees F. (Asked and answered by S. G. S., Pawtucket, R. I.)
2. Moon and Star are two automobiles bearing the names of planets. (Asked and answered by G. E. Lantz, Henshaw Motor Co., Boston, Mass.)
3. A gallon of commercial gasoline weighs approximately 6.6 pounds. (Asked and answered by C. E. P., Minneapolis, Minn.)
4. "Drive It a Day and You Will Drive It for Years" is a slogan of Dodge Brothers, Inc. (Asked and answered by G. E. Lantz, Henshaw Motor Co., Boston, Mass.)
5. Gasoline will freeze at — 202 degrees F. (Asked and answered by L. C. W., Philadelphia, Pa.)
6. "The Name Insures the Quality" identifies the Velie car. (Asked and answered by Walter Dexter, Chicago, Ill.)
7. A 100 per cent grade rises one foot for every foot advanced, as measured in a horizontal line. In other words, a 100 per cent grade rises at an angle of 45 degrees from the vertical. (Asked and answered by H. K., New York City.)
8. The new general manager of the Detroit Automobile Club is Richard Harfst (erroneously pronounced "Harps"). (Asked and answered by Lewy Dibble, Detroit, Mich.)
9. The Price-Hollister Co., manufacturer of automotive equipment, uses the trade name "Jumbo." (Asked and answered by W. D., Chicago, Ill.)
10. Chrysler climbed from twenty-seventh place to fourth place in four years. (Asked and answered by C. K. B., Detroit, Mich.)

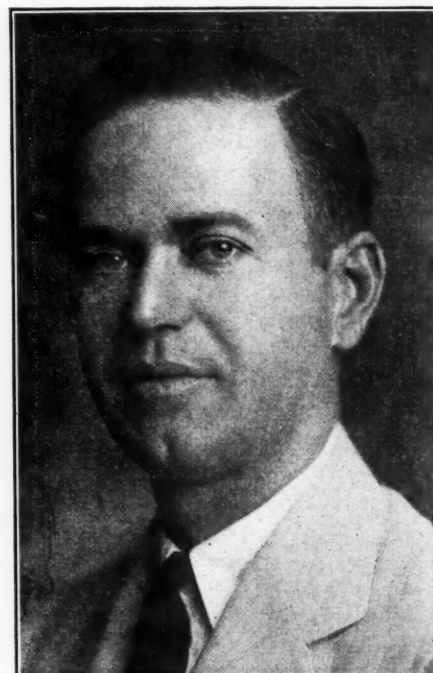
* These answers are not guaranteed to be correct, but are obtained from sources we believe to be reliable.



J. B. Mackey



A. S. Whiting



Owen McCall

Executives of the newly formed McCall-Auburn Co., San Antonio, Texas. The firm is Southwest Texas distributor for Auburn products and promises, ere long, to be one of the most prominent in that section. A modern sales and service plant located at 1935 North Flores St. houses the various departments of the business.

Expect Many From Overseas at Show

CHICAGO, Sept. 19—The largest delegation of representatives and leaders of the automotive world from overseas ever to attend an equipment show in the United States have already signified their intention of being present when the ninth annual trade show of the Automotive Equipment Association opens its doors at the Coliseum, Chicago, Nov. 7, and they are to be feted at a great banquet in the Hotel Stevens on Wednesday night, Nov. 9, according to an announcement from national headquarters.

The banquet is to be featured by special addresses on important trade topics by nationally known speakers, and by an elaborate entertainment program, states George E. Quisenberry, chairman of the banquet committee, who is being aided in the preparatory work by his fellow committee members, Karl Brunner and C. M. Wynne.

"The reception and banquet for overseas guests last year was one of the high moments of the week," says Mr. Quisenberry, "and we can assure the trade that we are going to do our best to equal last year's feast in congeniality, viands and resulting fraternity and goodwill. The overseas market is growing in volume and importance.

Laher Spring Co. Increases Capital
SAN FRANCISCO, CALIF., Sept. 20—The Laher Automobile Spring Co. Inc., has increased its capital stock to \$1,000,000 and announces a general expansion plan covering all six of its

plants. The Oakland, Calif., factory, which is the largest, will have entire new machinery in the spring, trunk and shock-absorber manufacturing departments, according to Frank Laher, president of the company.

Two Dozen Arrested for Bad Brakes In Hartford

HARTFORD, CONN., Sept. 21—"From the looks of the court docket for the past 10 days it would appear that every third person in Hartford is operating an automobile with defective brakes," said a Judge of the Hartford police court.

The police are making a drive on faulty brakes and arrests have averaged at least two dozen a day.

Don't take gas out of a customer's car to wash parts. It may be dirty Flat Rate Red



Willys European Sales Set Record

TOLEDO, Sept. 22—Sales of Whippet cars in Europe, through Willys-Overland Crossley, Ltd., the British sales organization for Willys-Overland, are reported to be the largest in the history of the company, in a statement just issued by John N. Willys, who recently arrived on the Leviathan.

"They are commensurate with our sales in Canada," said Mr. Willys, "where the increase for the first seven months of this year was 68 per cent over sales for the same period of last year.

"Both the English and the Canadian companies are definitely on a quantity production basis and it is reasonable to look forward to a substantially increased financial return from these companies to the parent organization."

Opens John Kimball Garage

TAYLORVILLE, ILL., Sept. 19—The John A. Kimball garage, erected at a cost of \$150,000 and said by Ford representatives, to be the finest in five states, was formerly opened this week. Mr. Kimball contracted with Henry Ford in 1911 to be his representative in this territory and has handled Ford products since.

Adopts Gold Seal Plan

SEATTLE, Sept. 20—A. S. Eldridge, president of the Eldridge Buick Co. here, announces that his firm will use the "Gold Seal Plan" of merchandising used cars.

Hennecke Expects Excise Tax Relief

CHICAGO, Sept. 17—When the Ways and Means Committee of the House begins hearings on tax reductions within the next two weeks, it will find the Automotive Equipment Association officially on record as favoring the repeal of the remaining automobile excise tax, according to Earl V. Hennecke, president of the association.

"All thinking business men are convinced the war excise tax with its inequities should no longer be continued," said Mr. Hennecke here today.

The Moto Meter president has sent forth a call to all members of the association immediately to exert their influence on congressmen to rectify conditions that no longer are warranted. Mr. Hennecke believes that while it is reasonable to expect further relief at the next session, members of the association should not be too cocksure.

Hinea Make Business Trip

SPOKANE, WASH., Sept. 19—R. W. Hinea, in charge of distribution of Ford cars in the Pacific Northwest, accompanied by L. E. Titus, Ford dealer at Olympia are now traveling through Washington, Montana and Idaho conferring with Ford representatives.

"As to the arrival of the new Ford models in the Inland Empire," said Hinea, "we expect them here within the next four weeks."

Alexander Smith Builds

KELOWNA, B. C., Sept. 19—Alexander Smith is erecting a modern garage and automobile showroom to replace the one that burned recently.



TOM JONES' advertisements of the car he handled didn't say anything about it that wouldn't be said about a Rolls-Royce. And Tom's car sold for \$4,500 less. Every letter he sent to



prospects dripped superlatives. The car was actually the most wonderful one made. Regardless of what you expected a car to do in the way of speed and endurance, this one would do it. And from reading the ads, one might have thought that the operating cost was about the same as though it were a two-wheeler; not a four.

That was Tom's idea of advertising. He remembered that a circus magnate had jokingly said something about fooling the people and Tom thought he meant it was easy.

Today Tom's in the shoe business, as a clerk. His boss spends money advertising and seems to think it pays, but Tom tries to tell him that it doesn't. He thinks advertising is the bunk.

People fall for circus advertising when it is about circuses. They want to see the lions anyway and it only costs a dollar. But they buy cars on FACTS, not FICTION.

*Old Doc Turnover B.D.
(Business Doctor)*

\$22,614,200 Total of Parts Sent Abroad

WASHINGTON, Sept. 20—A total of \$22,614,200 worth of automobile parts for replacement and repair purposes, was exported from the United States the first six months of this year, according to revised figures of the U. S. Department of Commerce. Similar exports the first six months of last year totaled \$15,895,007. Canada was the leading market, taking \$2,570,690. Other markets in order named were: Australia, \$1,800,034; United Kingdom, \$1,788,558; Argentina, \$1,537,893, and Japan, \$1,408,541.

Elwell Olds Plant Head

LANSING, Sept. 21—F. D. Elwell has been appointed plant manager of the Olds Motor Works, according to J. J. Carter, manufacturing manager. Mr. Elwell, who is a graduate of Iowa State College, class of 1902, joined General Motors in 1917 as assistant maintenance engineer of the Dayton Engineering Co., manufacturer of Delco ignition units. He continued with the Dayton company, serving in various capacities including superintendent of the maintenance division, until the first of September when he resigned to accept the position at Oldsmobile.

He succeeds C. H. Fisher who died recently.

Dunn Motors Handles Star

SEATTLE, WASH., Sept. 19—Dunn Motors, Inc., is now the Star distributing organization here. This was officially announced today by George R. Morris, sales manager of the Pacific Coast Star factory, who has been in Seattle during the past week engineering a reorganization.

What's Coming in Motordom

SHOWS

- Automotive Equipment Association, Coliseum, ChicagoNov. 7-12
- *Baltimore, 5th Regiment Armory, Jan. 21-23
- Boston, Aviation and Radio Exposition, Sept. 26-Oct. 1
- Brooklyn, Brooklyn Motor Vehicle Dealers Association, 23rd Regiment ArmoryJan. 21-23
- BuffaloJan. 14-21
- *Chicago, National Automobile Chamber of Commerce, Coliseum, Jan. 28-Feb. 4
- *Cincinnati, Music HallJan. 14-21
- *Cleveland, Public Auditorium.....Jan. 21-23
- ColumbusJan. 14-21
- *Dallas, Texas, Automobile Building, Oct. 8-23
- Denver, AuditoriumFeb. 27-March 3
- Des Moines, ColiseumFeb. 20-25
- Detroit, Convention HallJan. 21-23
- Indianapolis, Auto Show Bldg.....Feb. 13-18
- *Kansas City, Mo., American Royal Bldg.Feb. 11-18
- *Louisville, Ky., Jefferson County ArmoryJan. 16-21
- *Milwaukee, AuditoriumJan. 14-21
- Minneapolis, Municipal Auditorium, Feb. 4-11
- National Standard Parts Association, Convention Hall, Cleveland.....Nov. 14-18
- Newark, ArmoryJan. 14-21

Coming Features of Chilton Class Journal Publications

- Oct. 1—Production and Factory Equipment Issue—Automotive Industries.
- Nov. 10—Marketing Annual—Motor World Wholesale.

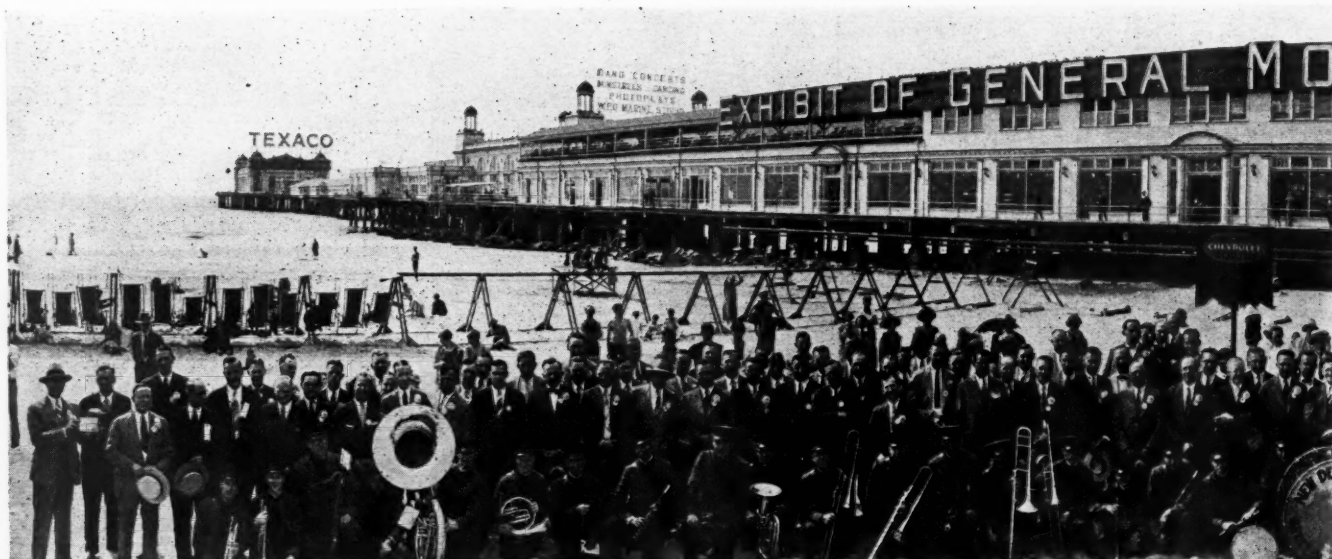
- *New York, National Automobile Chamber of Commerce, Grand Central PalaceJan. 7-14
- *Philadelphia, Commercial Museum, Jan. 14-21
- Rochester, N. Y., Edgerton Park, Jan. 23-28
- Salon, Automobile Salon, Inc., Hotel Drake, ChicagoJan. 28-Feb. 4
- Salon, Automobile Salon, Inc., Hotel Biltmore, Los AngelesFeb. 11-18
- Salon, Automobile Salon, Inc., Hotel Commodore, New York.....Nov. 27-Dec. 3
- Salon, Automobile Salon, Inc., Palace Hotel, San Francisco.....Feb. 25-March 3

- Salon, Los Angeles Motor Car Dealers Association, Hotel Biltmore.....Oct. 18-21
- *San Francisco, Civic Auditorium, Jan. 28-Feb. 4
- *St. Louis, City Market Bldg.....Feb. 20-25
- Syracuse, State ArmoryFeb. 6-11

*Will have special shop equipment exhibit.

CONVENTIONS

- Automotive Equipment Association, Coliseum, ChicagoNov. 7-12
- Iowa Automotive Merchants Association, Fort DodgeOct. 28
- National Association of Finance Companies, Congress Hotel, Chicago, Nov. 14-15
- National Standard Parts Association, Hotel Hollenden, Cleveland, Nov. 14-18
- National Tire Dealers Association, Brown Hotel, Louisville, Ky.....Nov. 15-17
- N. A. D. A.
Chicago, Jan. 31-Feb. 2—Annual, Palmer House.
- Chicago, Feb. 1—Banquet, Palmer House.
- New York, Jan. 9-10—Eastern District, Hotel Commodore.
- S. A. E.
Chicago, October 25-27—National Transportation and Service Meeting, Hotel Sherman.
- Detroit, Jan. 24-27—Annual Meeting.
- New York, Jan. 12—Annual Dinner.



Zone 15 Members of Chevrolet 72

In line with nation-wide activities of the Chevrolet 72-Car Club, members of zone 15, which embraces Philadelphia and at Atlantic City. The large husky gentleman in the white bathing suit, who looms up one inch to the rear of the bass drum many others. We understand that Mr. Ralph put the class through a course of setting-up—not set 'em up—exercises

Sensational Trade in General Motors

Both New and Old Stock Go
to New High; Attributed
to Traders

NEW YORK, Sept. 19—Advances approaching the spectacular in General Motors new and old stocks, transactions in which comprised about one-fourth of the day's total sales of nearly 2¼ million shares, overshadowed all other developments in last week's stock market. General Motors old stock soared nine points to a new top at 263, against the year's low of 145½, and the new moved up four points to 131½, both at new record highs.

Heavy buying of the General Motors issues was attributed to traders who already have amassed gigantic paper profits in that issue. Current sales of the corporation are reported to be running at a high rate.

U. S. Steel common was lifted to a new high at 157¾, but closed at a small fractional loss on selling, presumably inspired by the delayed pick-up of fall business and the further reduction in pig iron prices to the lowest level since 1916. Among the many issues to reach new high ground was American Bosch Magneto.

Form Trenton Automobile Co.

TRENTON, N. J., Sept. 19—The Trenton Automobile Co. has been incorporated by officials of three Ford dealers for the exclusive sale of Lincoln cars in Mercer, Burlington, Middlesex and Monmouth Counties, N. J., and Bucks County, Pa. The officials of the new company are William Metting,

president of the Free Bridge Motors Co., Morrisville, Pa.; Roy Trudel, of the Trudel-Harper Motor Co., Trenton; John S. Lutz, of the Lutz Motor Co., Trenton. A. J. Bush, formerly an official of the Thomas Motors Co. is in charge of service.

310,000 August Total of N.A.C.C. Manufacturers

NEW YORK, Sept. 20—Production of cars and trucks in August by National Automobile Chamber of Commerce member companies totaled 310,000, according to an estimate submitted to directors at their regular meeting today. This total represents an increase of 14 per cent over the July total of 271,157 and an increase of 8 per cent over the aggregate for August, 1926, which was 287,524. September totals will also show an increase.

As Ford Motor Co. was virtually out of production during August, the N. A. C. C. total represents practically the complete output for the industry in that month.

For the first eight months of 1927, production by N. A. C. C. member companies has totaled 2,326,512, a gain of 11 per cent over the 1926 total of 2,095,234 for these companies.

Bassett Promotion Manager

KANSAS CITY, MO., Sept. 21—R. M. Bassett has been appointed sales promotion manager of the Kansas City branch of Olds Motor Works, according to an announcement made by H. H. Mundy, branch manager. Mr. Bassett comes to Kansas City from St. Louis where he was connected with the General Motors organization as sales promotion manager of the Chevrolet Chevrolet branch. He is widely known throughout the middlewest.

Slow But Hopeful, Ayres Statement

Automotive Situation in Part
Responsible for Off
Conditions

CLEVELAND, Sept. 10—"Business continues to be slow but hopeful," Col. Leonard P. Ayres, vice-president of the Union Trust Co., declared today in the September bulletin issued by the bank. "The slowness is the result of the gradual decline in the production and marketing of goods that has been under way since last spring."

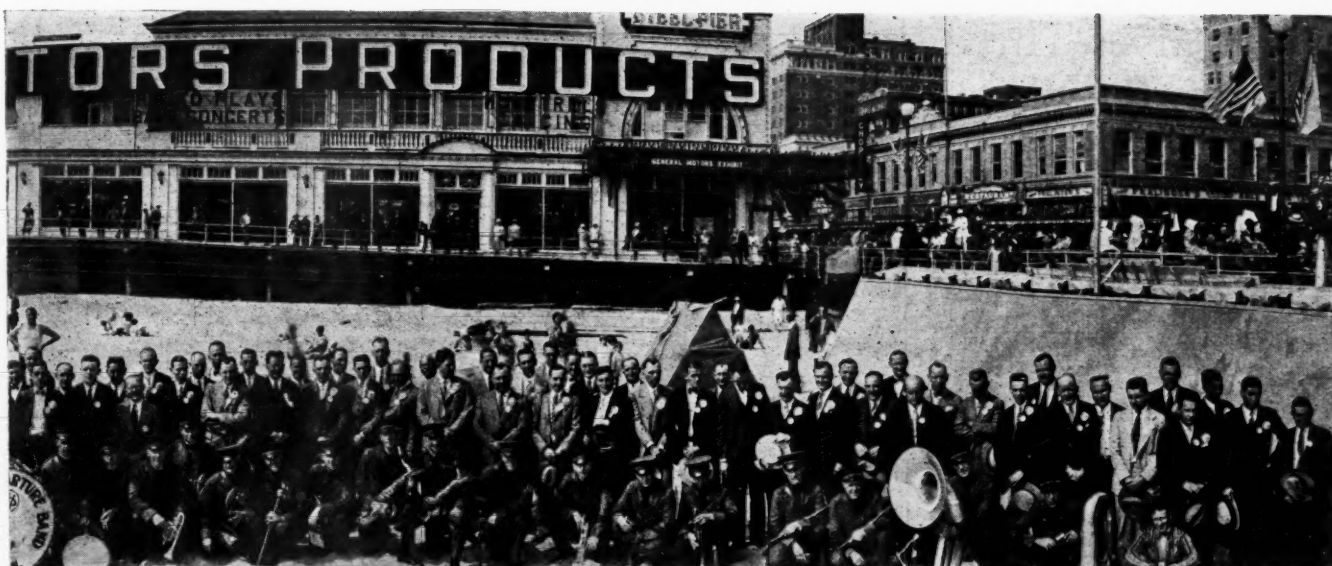
Col. Ayres pointed out the hopefulness is founded on the generally accepted belief that current and prospective ease in money rates will bring more than usual autumn stimulation of industry and trade.

"But it now seems probable that the final figures of 1927 will be lower than 1926 in the highly important fundamentals such as automobile output, iron and steel production, mining and transportation.

"Failure of the improvement to be maintained is attributed chiefly to the automotive situation." Col. Ayres named delay in Ford models announcement, and stated that motor vehicle production in the first half-year was about 15 per cent below the output for the first half of 1926, and the showings for the last half of the year promises to be less favorable.

Organize Santa Fe Motors

GAINSVILLE, FLA., Sept. 22—Santa Fe Motors, Inc., has been organized to deal in motor vehicles.



Car Club Celebrate at Atlantic City

surrounding territory, recently got together for a celebration and installation of officers. Here they are shown on the beach at the right, is none other than W. I. Ralph, vice-president of Chilton Class Journal Co., publisher of this business paper and shortly after this picture was taken. Please take particular notice of the building in the background and read the sign

Financial Strength of Willys Excellent

Cash Position Strengthened in Past Two Months; Sales Also Increase

TOLEDO, Sept. 20—With sales increase of 9 per cent in the first eight months of the year and considerable increase in the financial strength of the company in the last two months Willys-Overland figures were a source of satisfaction to Pres. John N. Willys on his return from two months spent in Europe.

He announced today that the cash position of the company and its general financial standing had been considerably strengthened during July and August. Cash now stands at \$17,016,804 as of Aug. 31, as against current liabilities of \$8,295,814.

At the half-yearly statement time cash and current assets were \$15,552,165 and current liabilities \$11,062,201.

During this period \$1,000,000 in bonds were retired and \$745,900 of preferred stock retired. The company now has \$6,000,000 bonds and \$16,520,700 par value of preferred stock outstanding.

Increase of \$1,500,000 in cash and decrease of \$3,000,000 in current liabilities in the last two months puts the company in excellent condition to face the fall and winter business.

Sales for the eight months ending Sept. 1 were 152,106 units as compared with 138,188 units in the same period last year.

McCormack Opens Two Branches
BIRMINGHAM, ALA., Sept. 17—Announcement has been made recently

by P. R. McCormack, president of the McCormack Motor Car Co., of the opening of branches both in Bessemer and in Ensley. The company is handling Packard and Nash automobiles and in opening new branches feels that it is giving the people of Bessemer a better and more comprehensive service than they have had before.

200 At Red Head Lunch at Toronto; Hear Fields

TORONTO, Sept. 22—Chrysler production in August exceeded 23,000 cars, according to J. E. Fields, vice-president in charge of sales, who spoke at the annual Canadian Chrysler dealers' luncheon here. Sales in the first eight months of the year show a gain of 33 per cent over 1926, he said. The greatest need of dealers in the United States, he said, is to develop more salesmen.

The luncheon was called the Red Head luncheon and was attended by 200 dealers, 25 per cent more than last year. Canadian sales showed a gain of 160 per cent in the first six months, J. D. Mansfield, president of the Chrysler Corp. of Canada, said. K. T. Keller, vice-president in charge of manufacturing of the U. S. company, told of the development of the new engine.

Ohio Buick Opens Home

CLEVELAND, Sept. 21—The new home of the Ohio Buick Co. was opened here by G. G. G. Peckham and C. W. Hunt, president and vice-president of the company. E. T. Strong, president of the Buick Motor Co., was present. The building is one of the largest and most equipped plants of its sort in the United States.

This is the fourth establishment of the Ohio Buick Co.

A.A.A. Opens War on Car Excise Tax

Has Cooperation of Prominent Trade Groups in Fight for Abolition

NEW YORK, Sept. 22—The campaign for the repeal of the 3 per cent excise tax on automobiles by the next Congress was formally launched this week in the issue of a "Primer" containing information on the tax situation, in question and answer form, by the American Automobile Association.

The A.A.A., it is indicated, will be the leader in the fight this year, as it is felt that the motor owners' official organization is the logical agency for conducting an offensive.

Cooperating with the body, however, will be virtually all the national organizations with automotive interests, including the National Automobile Chamber of Commerce, Motor & Accessory Manufacturers' Association, National Automobile Dealers' Association, Automobile Equipment Association, National Association of Finance Companies and Rubber Association of America, Inc. Meetings have already been held in which plans for the campaign were discussed.

Waco Chevrolet Moves

WACO, TEXAS, Sept. 21—The Waco Chevrolet Co. of which J. Bruton Oran is president, has moved into its new home in the down town district. The new building was remodeled at an expense of \$50,000. The company's activities formerly were housed in three separate buildings.

Hanch Gives Three Success Requisites

Finance Group Head Addresses Detroit Motor Truck Convention

DETROIT, Sept. 19—There are three requisites which go to make up a model retail automobile selling establishment is the opinion of Mr. C. C. Hanch, general manager of the National Association of Finance Companies. To be successful a dealer needs salesmen who will sell goods at a profit, buyers who will not over-allow on used cars, a competent credit authority to pass on the risk of time purchasers.

Mr. Hanch revealed his views the other day while addressing Motor Truck Industries, Inc., of America, at its convention in Detroit, when, among other things, he opened up the subject of the much mooted and so-called used car and used truck problem.

"We have all heard much about the so-called used car problem," he said. "Several different plans have been advanced and urged recently as a means of curing or relieving this situation. But in my opinion these so-called plans will not, after all, provide a solution. The solution, to my mind, is as simple as A, B, C, and it is simply to have buyers purchase trade-ins.

"Good sellers usually are not good buyers and good buyers, as a rule, are not good sellers. This brings us down to the point that both types of men are actually needed in any successful institution.

"Putting it another way we might say that no man is a buyer unless he has an appreciation of value. And any salesman who lets go of goods without a profit isn't a salesman. He may be some kind of a gift bestower but he isn't a salesman."

Borg & Beck Co. Offers Deal to Shareholders

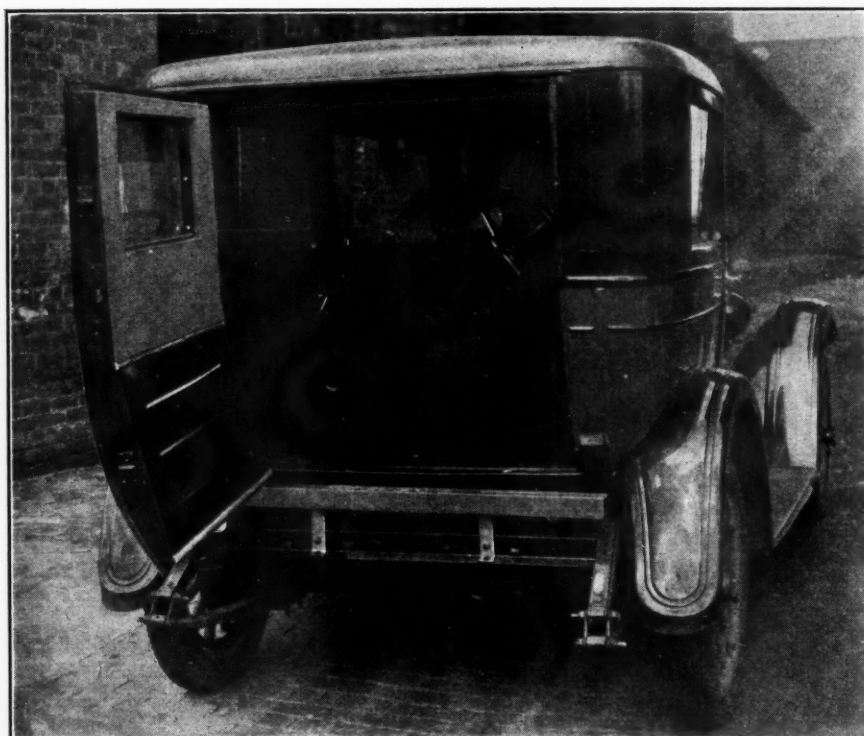
NEW YORK, Sept. 20—Borg & Beck Co. stockholders will be offered the right to subscribe at \$40 a share to seven shares for every 100 shares held. Value of the rights at the present market is something over \$2 a share.

Erskine Wins Santa Fe Race

SOUTH BEND, Sept. 21—The Studebaker Corp. of America has been notified by its Buenos Aires branch of the winning of the Santa Fe Automobile Club race from Santa Fe, Argentina, to Buenos Aires, by an Erskine sedan. The distance was 345 miles and the run was made in nine hours and 48 minutes at an average speed of 35.2 m.p.h.

Gough Takes on Willys Line

DALLAS, TEXAS, Sept. 22—J. P. Gough, for 11 years in the Willys-



Two Minutes to Change

Here we have a combination coach and commercial car, recently put into production by Willys-Overland on the Whippet chassis. To the casual eye, the car is the conventional Whippet, but the rear door may be opened and the seat removed as shown, making it available as a light delivery vehicle

Overland factory and for the past five years branch manager for the Willys-Overland at Dallas, has organized the Gough Motor Co. and taken over the Willys-Overland franchise in Dallas.

Motorcycle Manufacturers to Make English Car for U.S.

DETROIT, Sept. 19—It was learned in local automotive circles today that definite steps have been taken to introduce an English type automobile to the American market. One of the prominent makers of a small English automobile is negotiating with a prominent American motorcycle manufacturer to make the car in this country.

30 Attend Conference

EUREKA, CALIF., Sept. 21—Humboldt county, one of the less heavily populated divisions of the state, turned out 30 dealers to attend the August meeting of the Automobile Dealers' Association of Humboldt County, the largest attendance yet reported. Merle McCann, president of the county organization, presided.

Jumpers Found Company

SPRINGFIELD, S. C., Sept. 19—H. A. Jumper and W. J. Jumper, both of Springfield, identified for some years with the automobile business in the Carolina territory, recently organized and incorporated a new company here to handle the Chevrolet car in this district.

American Automobiles Win "American" Trophy

DELINS, Sept. 20—In the collection of trophies which have been won in Europe by Chrysler cars one of unusual appropriateness has recently been added in a Poland contest.

The trophy, which is a fine example of artistic modeling, represents an American bison. For fifteen years the Automobile Club of Poland has offered this trophy to any team of three cars which could finish its six-day reliability run without incurring penalties, or "black marks," but until this year none of the competing automobiles have been able to comply with the difficult conditions. It remained for three Chrysler "70's" to lift the prize so intimately associated with American backgrounds, in a competition which included teams of 11 well known European and American makes.

DeBussman Promoted

KANSAS CITY, Sept. 21—Walter DeBussman has been promoted to manager of the used car department of the Reo branch here by Fred Vincent, vice-president and manager. Taking over the business in the dull season of the year, he sold \$20,000 worth of used cars in two weeks.

Builds New Service Station

ROCHESTER, N. Y., Sept. 22—The Hoselton Chevrolet Co. of East Rochester is erecting a new service station.

Ga Me Da Offering Course In Selling

Enrolments Being Received
for Study Embracing
Two Courses

CHICAGO, Sept. 19—Compiled from information obtained in a comprehensive survey of automotive selling methods, Harry G. Moock, managing director of the Automotive Equipment Association Greater Market Development, has just announced the completion of a course in automotive selling, for which enrolments are now being received.

The course is to be known as the "G.M.D. Course in Automotive Selling." It is not an "educational course" in the generally accepted conception of the words. Instead it is a collection of the best selling methods actually in use in the trade, arranged in six units for individual study.

Shortly after the inauguration of the Greater Market Development movement Mr. Moock entered into a contract covering the preliminary research work and actual preparation of this course. During the last four months a crew of 10 specially trained investigators has been covering all phases of the after-market trade—manufacturing, wholesale and retail, executive, department head and salesman—in all sections of the United States and Canada.

These investigators have shopped for accessories, parts and service. They have worked behind counters in jobber establishments and with both city and traveling salesmen. They have gone about with manufacturers' missionary men. They have introduced themselves to executives and asked a lot of questions. In addition to this personal investigation, thousands of questionnaires have been sent to manufacturers, jobbers and their salesmen.

As a result of this exhaustive investigation the G.M.D. course in automotive selling has been compiled in two sections. The retail course is for retailers who handle after-market products, accessories, parts and service, and the members of their organizations—service men and salesmen.

Willys-Overland Canadian Sales 62 Per Cent Higher

DETROIT, Sept. 22—Sales of Willys-Overland cars in Canada for the first seven months of 1927 show a gain of 62 per cent.

With prospects indicating the greatest crop harvests on record in Canada the officials of Willys-Overland, Inc., expect to establish new high sales figures in Canada for 1927.

Sunshine Changes Name

JACKSONVILLE, FLA., Sept. 19—The Sunshine City Motor Co. has been authorized to change its name to Estes Motor Sales Co.

CLOSE UP AND LOW DOWNS

By SAM U. L. SPARKS

WELL, I see where "patriotic motives" is going to induce Miss America to let people see her in tights on the stage and in the movies. They said she was old-fashioned, and now I know she is.



After all, they's only one feminine mystery left, and her name is Lizzie. And when she comes out they will no doubt call her Nancy. If you don't get that one, I will draw you a diagram of it.

Out West they's a guy which has got a reputation for telling where you can strike oil wells, because if they's oil there, he gets sick in the stomach. He ain't got much on yours truly. I get the same kind of a feeling when I hear people say the So-and-so car is as good as the Halfpast Six.

Mark Twain had the right dope when he said a oil well is a hole in the ground owned by a liar. The guy which sells the So-and-so car is a member of the same tribe.

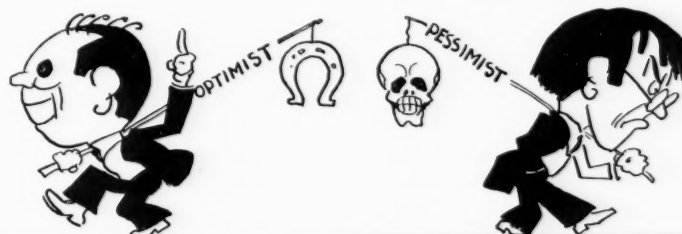
Well, they say a man has gotta die before he becomes known. Ain't it the truth? Talking about this man Glidden: I mind about twenty years ago when he was running them Glidden tours, but somehow or another I always thought he was a varnish maker, until he died the other day and the papers said he was a telephone expert.

Every once and a while somebody has got something to say about my language, and it makes me smile, because I know that it's the kind of plain U. S. language that people most generally understand. The other day I heard a little conversation which will maybe show you what I mean.

"Look at all the used cars," said one anthropoid, if you know what I mean. "Aren't they numerous?"

"Yes," says the other, "and ain't there a lot of them?"

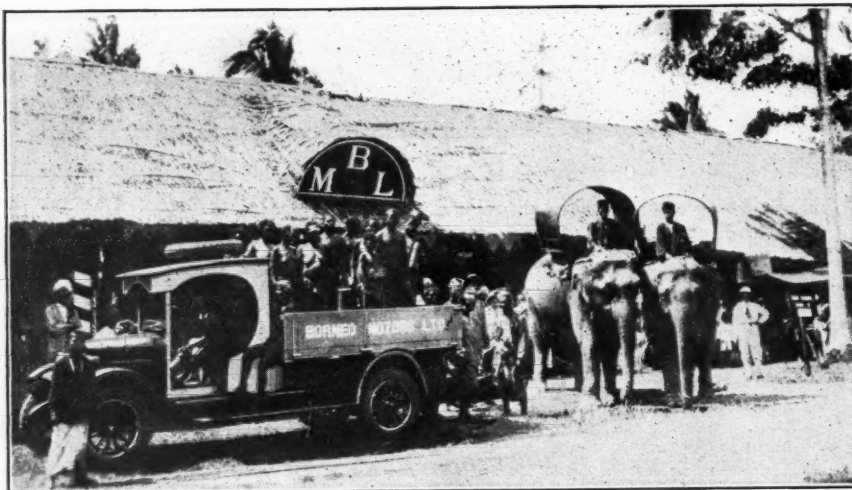
Being a author gets you acquainted with a lotta books, which the most interesting is a novel book called "The Dictionary." A guy says to me, "Sam, you are a natural born optimist." As usual I laughed it off, but it seemed to me like I kinda remembered that a optimist was some kind of a jelly fish, so I looked it up, and I found out just what a optimist is, namely, "opposed to pessimist." Then I looked for pessimist and it said, "opposed to optimist,"



which it would of left me kinda misty if I hadn't of remembered that I once heard that a pessimist was a guy which puts his brakes on before he starts up a big hill so that if he can't make it, he won't slip back. And so I have it doped out that a pessimist is a guy which thinks something is going to happen, but it don't, whilst a optimist is the opposite, namely, a guy which MAKES things happen.

If you want to get a good line on a guy, watch what he does when he ain't got nothing to do. Me, I most generally am always busy and when I ain't, do I go out and say to everybody I meet, "Business is bum?" Not much.

One reason why the business of the Enterprise Garage here at Sparks Corners is always busy is because when anyone starts talking to me about poor business, I tell him how busy I am, and he tells his neighbor, and before long you hear from one end of the county to the other that the Halfpast Six must be a good car because Sam Sparks is selling a lot of them, and that makes business good. The guy which made the wise-crack, "Like begets like," must of been a good automobile seller.



Shebas Shriek for Chevvies

The Borneo Sheik without a Chevrolet is sheba-less. Note the disconsolate two on the hippopotamuses and then look at the luck of the lad in the lorry. Fortunately for him the truck has a dump body

G.M.C. Sales New Record in August

NEW YORK, Sept. 17—General Motors Corp. retail and wholesale sales of cars and trucks set a new record for August last month. The dealers' sales to consumers were 158,619 cars against 134,749 in July, an increase of 29.7 per cent over August, 1926, when the total was 122,305. Sales by car divisions to dealers in August were 155,604 against 136,909 in July and 15.9 per cent better than the figure for August, 1926, when such sales were 134,231.

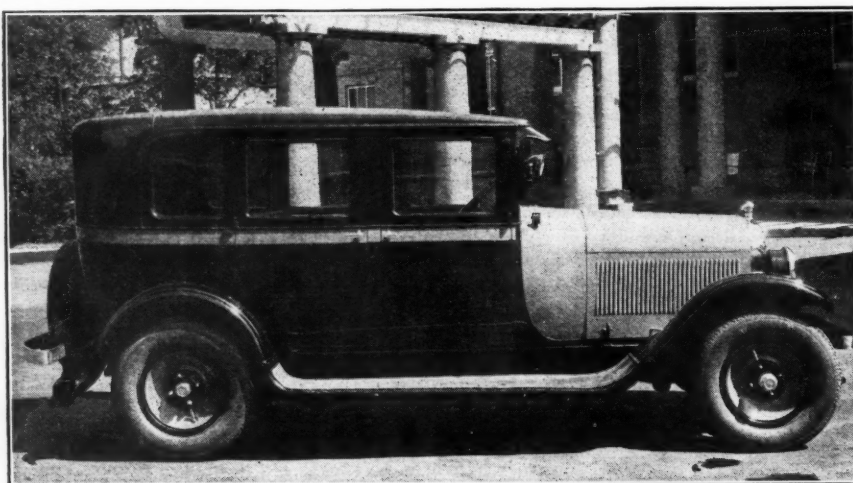
Zimmerman to Handle Oakland

COLUMBUS, OHIO, Sept. 21—Orr S. Zimmerman, Inc., is the name of a new corporation chartered with a capital of \$50,000 to distribute the Oakland and Pontiac lines in central Ohio. The

place of business will be at 281 East Broad St., where the sales room and service station will be operated. The F. E. Avery Co., former distributors will continue as a sub agency at 1199 Franklin Avenue. Incorporators are Orr S. Zimmerman, Charles Zimmerman and Hugh M. Bennett.

Chicago N. S. P. A. Group to Travel De Luxe to Show

DETROIT, Sept. 22—The Chicago Division of the National Standard Parts Association has chartered several private cars for attending the N. S. P. A. Convention in Cleveland, Nov. 14 to 18. According to C. M. Burgess, president of the Chicago group, the delegation will leave the LaSalle St. station over the Nickel Plate railway, Sunday night, Nov. 13. Their equipment will consist of observation and buffet car with several sleepers, with an interesting program of music en route.



This "Yellow" is Buick Engine

Equipped with the Buick Six engine, this luxurious Yellow cab recently announced by Yellow Truck & Coach Mfg. Co., provides in full measure the beauty and smoothness of operation demanded today by the public

M.A.M.A. Adopts Merchandise Plan

Seeks to Better Conditions of Sales and Deliveries to Customers

DETROIT, Sept. 19—After months of careful study of marketing conditions in the automotive industry, especially as it has evolved about the practice of close buying, the Motor & Accessory Manufacturers Association in convention at Detroit, Thursday, adopted a plan of equitable conditions of sale and delivery which it will request its members to follow as closely as possible. Investigation revealed that conditions arriving from close buying was making it harder for members to operate on a steady basis and at the same time serve the customer properly and make a reasonable profit and was thought that if a more equitable plan could be effected that it would benefit not only the parts maker but the customer as well.

Text of Plan

The Motor & Accessory Manufacturers Association believes that conditions of sale and delivery in the automotive industry should be such as to assure:

To the Buyer:

1. Quality products guaranteed against faulty workmanship or materials and conforming, when so agreed, to the specifications of the buyer.
2. Deliveries according to schedule.
3. Lowest possible price commensurate with fair profit for the seller, this profit to make reasonable allowance for an overhead that considers stability of organization engineering service when needed and research leading to improvement in processes and product.

To the Seller:

1. Purchases which are definite as to quantity and date of delivery.
2. Orders in sufficient quantities and far enough in advance of delivery dates to permit economical purchase, processing and shipping of materials.
3. The sufficient notice of modification of orders to prevent loss as a result of purchase or fabrication of materials not required, or reimbursement if such losses occur.

In order to maintain equitable conditions the association believes that suppliers:

1. Should quote definite prices only on definite quantities for delivery within a stated period, prices to be adjusted if the stated quantities are not taken.
2. Should fix minimum quantities for production runs of specially designed products with definitely stated higher prices if delivery schedules are so small as to necessitate shorter runs.

(Turn to page 25, please)

Glancy Addresses Ohio NADA Men

Stresses Service; Vane, Hoffman Also Make Addresses at 3-Day Meet

CLEVELAND, Sept. 15—The two outstanding chords running through the 1927 convention of the Ohio Council of the National Automobile Dealers' Association were presented to the 500 Ohio dealers at the banquet closing the three-day meet.

"First, remember that 100 per cent service to the customer is going to be the big development for the coming years in the automotive industry. That will be the major selling point, instead of being able to say we have a car which can run 90 m.p.h.

"Secondly, install an accounting system. A financial statement is the chart by which your business is navigated. A monthly financial statement in hands of all dealers would make business sail mighty smooth."

These developments were presented by A. R. Glancy, president of the Oakland Motor Car Co., Detroit, Mich.

J. Adam Bede, former congressman from Minnesota, was the other speaker on the program. G. G. G. Peckham, president of the Cleveland Automobile Manufacturers' and Dealers' Association, was chairman. He was introduced as "Great, Grand and Glorious," by Harry T. Gardner, toastmaster, manager of the Cincinnati Automobile Dealers' Association.

New Board Members

New members of the board of governors are: J. W. Tarbill, chairman of the board, also a director of the National Board and president of the Cincinnati Automobile Dealers' Association; H. B. Coen, Columbus; S. H. Toles, Springfield, and J. Grant Hyde, Akron, Ohio. Members reelected are Warren Griffith, Toledo; G. G. G. Peckham, Cleveland; Howard Pfau, Youngstown; Charles Schick, Cambridge, and John S. Taylor, Portsmouth. Griffith was formerly chairman.

High spots in the convention lined up together with the nation-wide movement to improve motor car maintenance methods.

Dealers unitedly acted favorably on a resolution proposing a campaign among Ohio automobile dealers for the systematic education of everyone concerned with servicing the automobile.

J. F. McDonald, service-superintendent of the Ohio-Buick Co., declared that machinery is being designed and methods are being devised, which if properly used, will increase the average life of motor cars. C. A. Vane, general manager of the National Automobile Dealers' Association, talked on the used car situation.

"Buyers are benefiting from the competition between dealers in the used car

(Turn to page 24, please)

Jest—A Bit Cynical

By S. G. SWIFT

I HAVE, all unwittingly, acquired another distinction to add to those that I already have in that I am, so far as can be learned, the only man in the United States that is not particularly anxious to see the new Ford car. I hope it will be the epitome of perfection that many expect it to be, but the chances are that it will be just another good automobile. I mean I don't expect that it will have wings or anything like that.

* * *

A COLORED gentleman—don't stop me if you've heard this one because I've got a column to fill in about 15 minutes and every little bit helps—named Sam had a gun that he wanted to sell. But no one wanted to buy it. Finally he showed it to a friend. The friend's name was something like Archie or Fritz or Mike. We'll call him Ole, for atmosphere. He wanted a gun, but he wasn't exactly sold on the one Sam had. "What'll it do?" he asked. Sam for answer, invited him out to see how the gun would shoot. So they adjourned to a field. A fish-hawk—that's a bird, not a peddler—was floating along, far up in the summer sky. Taking careful aim, Sam pulled the trigger. Down flopped the bird. "What do yuh think o' that foh shootin'?" asked Sam. He was expecting felicitations. But Ole shook his head. "That wa'n't much," he grunted. "My gawd," said Sam, popeyed. He was astonished. "What yoh aixpect a gun to do?" "Nemmine dat," answered Ole. "'Twa'n't no real test. Take somethin' near the ground. The fall would 'a killed dat hawk anyways."

Demonstrate what your car will do, but don't expect a mere demonstration to sell it to every prospect.

* * *

ARE you being resourceful these days. Because resourcefulness will sometimes help to put over the sales when all else fails. I mean you have to use your head. As an instance of what a bean will do for you, Ed. Bucholz, Hinsdale, Ill., tells us of trying to sell a tractor to an elderly farmer who wanted to buy but hadn't the ready money. Ed. asked him if he didn't have any Liberty Bonds or anything like that. The old fellow admitted that he had, but said he thought he had lost title to them because he hadn't "been keeping up the payments." He thought that the coupons had to be paid each time they came due. Well, Ed. sold the tractor. Perhaps you have prospects on your list right now who have confused their savings bank books with their dining room sets. Wise 'em up and make that sale. They'll thank you.

* * *

PAPER money is to be made oil resisting so that it will last longer. The explanation is that some of you fellows have been using bills as towels after serving at the oil and gas pumps. Well, my guess is that making it last longer won't make it last longer.

* * *

ACCORDING to their letterhead, Jonas & Son, in addition to being automobile merchants, blacksmiths and repairers of farm machinery, are also "Feeders of Fat Calves." (Printer—that's a "d" not an "l.") Also, this firm sells sewing machines, J. M. Jonas, Sr., is town clerk; and an apparently recently added line indicates that the outfit is agent for the White Star Line. A snug little business, I call it; plenty of divertisement and no dish washing—you'll notice there's nothing said about nickel lunches.

* * *

I HAVE had many a lofty ambition in my career; in fact I never had one that wasn't entirely worthy, but chief of all is the ambition that grips me, at times intolerably, to build a speed boat. It isn't that I want a speedboat, but rather that I am willing to go to all the bother of building it, merely to have the pleasure of naming it Mr. instead of Miss. I tolerate precedent; but I have little patience with it. The only precedent that makes an appeal to my nature is the necessary precedent for doing naughty things as a means of self-expression. You might, speaking fatuously, call that a vice-precedent.

* * *

REGARDING the last sentence; I'd hate to die the inglorious death of being shot as a punster; my mother used always to frown and quote Shakespeare at me whenever I fashioned one, but the reason I persist, despite her teachings, in making them, is because I like them. A pun may be the cheapest form of wit, as someone has remarked, but that's a blessing, what with the mounting expense of publishing business papers.



Look at 'em Smile. Apparently No One

A few of the many who comprise the Black & Decker organization shown at the Black & Decker sales conference held at the members of the sales force from the United States and Canada. Upon arrival at the camp the men were met by and the camp was operated in regular army fashion, with inspections and all that. Meetings were

Work's Successor Not Yet Named

Many Mentioned As Being
In Line for Presidency
of Goodrich Co.

AKRON, Sept. 19—While there are several officials of the B. F. Goodrich Co. eligible for promotion to the presidency, it is generally believed by those in close touch with the management that an executive outside the ranks of the company will be selected to succeed the late Bertram G. Work. Persons holding this view point out that the appointment of one of the heads of departments might cause friction in the ranks of the company.

Goodrich officials announce that a new president probably will not be named until the next regular directors' meeting, Oct. 26.

Among executives with the company mentioned as being in line for the position are: W. O. Rutherford, vice-president in charge of sales; L. D. Brown, vice-president and treasurer; Harry Hough, vice-president and comptroller; J. D. Tew, works manager, and W. C. Van Cleef, secretary. All of them have made excellent records in their departments.

Shill Leaves Randall

SALT LAKE CITY, Sept. 20—R. D. Shill, for several years sales manager for the Randall-Dodd Auto Co., Buick distributor, has resigned to go into the automotive business on the Pacific coast. He is succeeded by F. W. Sellwood who has been service manager for the company for some time past.

Gifford Co. May Change Name

LANSING, Sept. 21—The Gifford Engine Co. is considering plans to change its name to the Gifford Engi-

neering Co. When the company was organized 20 years ago it manufactured engines but about 10 years ago discontinued this line and has since been making automobile parts.

G.M. Exposition Hall to Give Way to Offices

DETROIT, Sept. 22—The large exposition hall on the fourth floor of the General Motors building will pass out of existence on Nov. 1, when the corporation will devote the space to one of its departments.

Form Davies Motor Parts, Inc.

TAMPA, FLA., Sept. 19—Davies Motor Parts, Inc., has been organized here with a capital stock of \$25,000.

Stuffed Rattlesnakes Don't Halt Trespassers

SAN FRANCISCO, CALIF., Sept. 21—Stuffed rattlesnakes, placed in lifelike and menacing positions on fences and gates, have failed to keep motorists off the lands of a power company at Elko, Nevada, according to Charles Stephenson, foreman for the corporation.

"Snakes are very plentiful in the canyons," said Stephenson, "and we 'posted' the stuffed snakes to warn motorists to keep out of these gorges, but they pass the warnings as if they were not there."

"Women and children make up the larger part of those who seem determined to investigate the canyons, but the men shoot the stuffed snakes off the posts and drive on in."

Employers OK New Trade Association

See Benefit to Industry In
Program of Automotive
Salesmen's Group

WASHINGTON, D. C., Sept. 19—That employers throughout the country look with definite favor upon the formation of the National Automotive Salesmen's Association, and that they are more than desirous of cooperating with the newly-formed organization to the fullest possible extent for their mutual welfare and the ultimate benefit of the industry and the public, is strongly indicated in the flood of communications from automobile dealers which have reached national headquarters here during the past week.

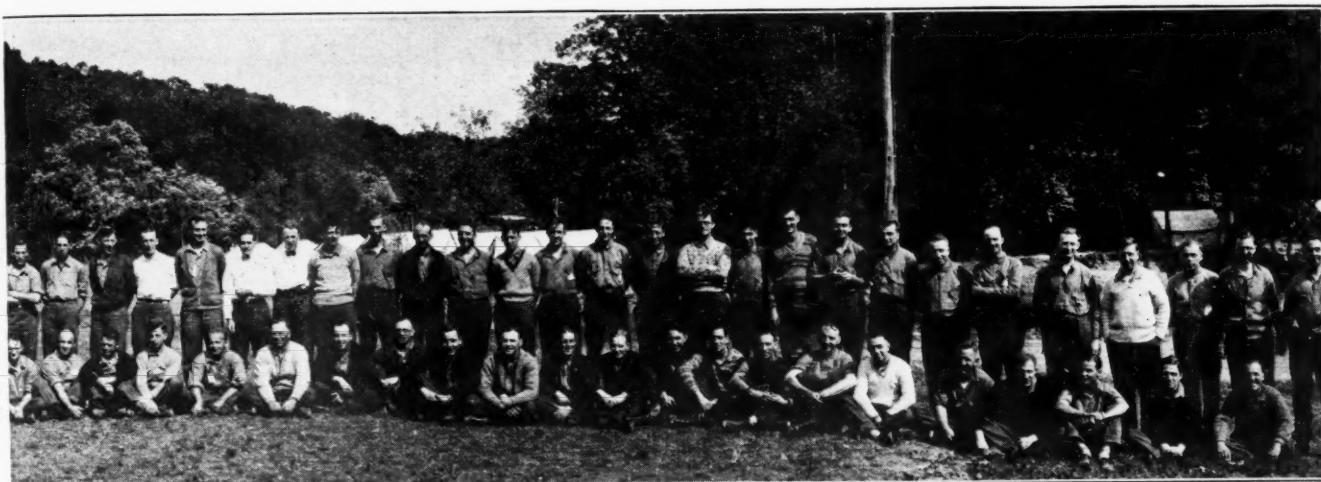
From all parts of the United States, and from dealers in metropolitan centers as well as in small communities, have come letters and telegrams which express a united conviction that cooperation between the retail distributors and the salesmen, through the National Automotive Salesmen's Association, not only is feasible but greatly to be desired as a constructive step forward for the industry as a whole.

Harmon in Toledo

TOLEDO, Sept. 19—A. R. Harmon, formerly wholesale manager of the John H. Thompson Co., Detroit, distributor of Chrysler cars, has joined the Landman-Griffith Co., Chrysler distributor in the Toledo territory in a similar capacity, succeeding (Bob) G. N. Evans, who has resigned.

Found Bowers & Bowers, Inc.

LEXINGTON, N. C., Sept. 22—Bowers & Bowers, Inc., has obtained a charter to engage in the business of buying and selling automobiles.



Was Bored at this Black & Decker Drill

the camp of S. D. Black, R. D. Black and W. C. Allen on Deer Creek, 30 miles from Towson, Md. Those in the picture are a hardened drill master who deprived them of their clothes and gave them regulation khaki. Everyone lived in a tent held in a large tent in which all of the various B. & D. tools were set up ready for operation

September Sales and Output Fair

Production Total Less Than August; Dealers' Stocks Accumulate

NEW YORK, Sept. 21—September gives every evidence of being a normal month for a majority of the automobile producing companies. The August production total of about 310,000 cars and trucks is not likely to be equalled this month, but the recession will not be drastic. The hesitancy on the part of buyers that has kept the output total of the industry below the 1926 level has not been overcome and as the time for the Ford announcement draws near there may be further slackening.

Active production by Ford will settle a moot question—whether the automobile market this year has been intrinsically a poor one as compared with 1926 and 1925, or whether a substantial number of prospective buyers have merely deferred their purchases. The more optimistic view is generally taken in the industry.

Dealers' stocks of new cars in some lines have had a tendency to accumulate in recent weeks and this accounts for somewhat lower production schedules in some instances.

Organize Piedmont Exchange

CHARLOTTE, N. C., Sept. 19—The Piedmont Auto Exchange, Inc., has been organized and chartered to operate a general automobile business. The authorized capital stock is \$50,000. George Gilbert, R. W. Buckley and A. F. Selden, all of Charlotte, are the incorporators.

Found W. C. Cole, Inc.

TOLEDO, OHIO, Sept. 21—W. C. Cole, Inc., has been chartered with a

capital of \$50,000 to deal in new and used cars, parts and accessories and to operate a garage and service station. Incorporators are W. C. Cole, N. G. Leatherman and Harry W. Morgan.

G.M. Truck Co. Will Build Big Plant on West Coast

SAN FRANCISCO, Sept. 22—The General Motors Truck Co. is about to erect a large factory branch in San Francisco, comparable with the branches recently completed in Detroit, Chicago, Pittsburgh, Boston, Los Angeles and Oakland, according to announcement by P. L. Emerson, vice-president and director of sales of the G.M.T.C., who is attending a meeting of the corporation's branch managers from the intermountain and Pacific coast territories.

Plans for the branch have been completed.

Reynolds Takes on Chrysler

SPOKANE, WASH., Sept. 21—Hatch Motor Co. has appointed Reynolds Motor Co. Chrysler dealer in Coeur d'Alene, Idaho. Frank Reynolds is manager of the company.

Only Takes a Moment

HAVE you voted this week? Are you going to help decide who is the most popular wholesale automotive salesman in your trading zone? Will you help him to win part of the \$2,075.00 which will be paid in the *Motor World Wholesale* contest for the 27 most popular wholesale salesmen in the United States? Read about this interesting contest in another part of this issue. Send your votes promptly.

Ireland Building Big Road System

Metzger Sees Network of Buses Connecting Remote Sections

NEW YORK, Sept. 21—Looking upon Ireland as a new center of business prosperity and a future Mecca for tourists, William E. Metzger, who returned from Europe on the Ile de France this week, made a special report on Free State conditions to the directors' meeting of the National Automobile Chamber of Commerce, held Sept. 8. Mr. Metzger is a director of the chamber and chairman of its insurance and traffic committees.

"Motor transportation in Ireland is going forward at a more rapid rate than any other country which I visited," says Mr. Metzger in his report.

"In all parts of the country roads are being constructed or repaired.

"The Free State government evidently looks upon the Irish highway system as a primary form of improvement for prosperity, and these measures may be looked upon to bring large trade for this island country."

Sullivan in Birmingham

BIRMINGHAM, ALA., Sept. 21—C. F. Sullivan, district manager for the Locomobile Co. of America, spent several days in Birmingham recently, looking over the situation with a view to locating an Oldsmobile dealer here.

Bleck Retail Sales Head

SPOKANE, WASH., Sept. 17—The appointment of A. H. Bleck to the position of retail sales manager and merging of the new and used car departments under Mr. Bleck's direction was made recently by Eldrick-Buick Co.

Fuller is Host to Packard Executives

Heads of Distributing Units Are Entertained by Governor of Bay State

RYE BEACH, N. H., Sept. 19—The annual get-together of Packard distributors throughout the country has been under way here for three days. The distributors came here Wednesday and were lodged at Stonleigh Manor, close to the home of Gov. Alvan T. Fuller, of Massachusetts, Packard distributor for Boston and other places in that section, who is their host.

The factory was represented by President Alvan Macauley, Secretary M. A. Cudlip, Vice-President Col. J. G. Vincent, Vice-President E. F. Roberts, Vice President H. H. Hills, General Sales Manager R. E. Chamberlin, H. N. Davock, General Service Manager, F. H. McKinney, Advertising Manager, and J. J. Marks, Comptroller.

Others present were B. C. Budd, Lee J. Eastman, M. M. Gilman, F. B. Sullivan, William Elliott, all of New York. Philadelphia was represented by Robert B. Parker, C. F. Woltz, W. H. Quay, H. Lee Bogardus, B. D. Easling, C. G. Culver and J. F. Dempsey.

Others present were H. W. Peters, Chicago; Wayne S. Pickell, Detroit; Arthur S. Zell, Baltimore; Elmer Turner, Greensburg, Pa.; Earl C. Anthony and George R. Bury, California; George M. Berry, St. Louis; Walter Y. Anthony, Minneapolis; C. P. Joy, St. Paul; J. W. Tarbill, Cincinnati; Clinton W. Fiske, Cleveland; Ira L. Berk, Pittsburgh; Oscar Cooligan, Washington; Ralph E. Brown, Buffalo; L. R. Mack and A. W. Whitehouse, Albany; J. E. Hansen, Rochester; R. C. Kilgour and W. L. Cowan, Toronto.

Rims Flop Slightly

CLEVELAND, Sept. 22—The rim inspection report of the Tire & Rim Association of America, Inc., shows a total of 1,825,905 for August this year as against 2,378,850 in August, 1926. For the first eight months of 1927, inspections totaled 14,926,999 as against 17,697,955 in the same period last year.

Total inspections of high pressure rims in August, 1927, was 38,267 as against 102,099 in August last year. High pressure rims inspected in the first eight months totaled 342,252 as against 615,273 in the same period last year. Balloon rims in the 18-in. and 19-in. group showed tremendous increases in the first eight months, the 18-in. group totaling 628,136 as against 24,676, and the 19-in. group, 1,498,217 against 186,774. Declines were shown in the 20-in., 21-in. and 22-in.

Organize Empire Sales Co.

TROY, OHIO, Sept. 20—The Empire Sales Co., Inc., has been formed with a capital of \$25,000 to deal in new and

Two Suit Cases Replace Engine But Car Still Keeps on Going

OTTAWA, ONT., Sept. 22—A highly successful engineless automobile is now in operation in Canada, thanks to the ingenuity of two Canadian war veterans, Frank J. Elliot and George A. Scott of Amherst, Nova Scotia. In 17 days they traveled 1600 miles in their light car, a Ford, despite the fact that two suitcases are accommodated under the hood in place of the powerplant. They hope to reach Vancouver, B. C.,

by Oct. 16, without a cent of cost for gasoline for the simple reason that their car does not require any.

Their most important piece of equipment is a stout tow rope because they are depending solely upon voluntary towing on the part of other motorists to reach their destination. Tourists readily consent to giving them a tow for distances ranging up to approximately 100 miles.

used automobiles, parts and accessories and to operate a garage. Incorporators are John C. Parsons, J. B. Snell and Harry Frey.

New Building in Boston for Studebaker Agency

BOSTON, Sept. 22—The Studebaker Sales Co. of Boston, distributor of that line, has just closed a deal whereby a new building is to be erected for the company's use at the corner of Jersey and Boylston Sts. near the Fenway. It will be three stories of concrete, reinforced by steel, thoroughly fire-proof and will be ready about Dec. 1. The building will be used to house the wholesale department, executive offices and service section. On the first floor will be the offices and a salesroom for funeral cars, buses and commercial vehicles. The two upper floors will have the service department. All new machinery will be installed.

Form Parts Group

LOS ANGELES, Sept. 20—An organization has recently been formed here composed of some 30 of the leading automotive parts jobbers of this district under the banner of the "Automotive Parts Club of Southern California." Its members have been recruited from the area extending from Santa Barbara to San Diego.

The officers of the club are as follows: President, R. W. Foote, of Kanouse & Foote. Vice-president, H. J. Banta, of The Banta Co. Secretary-treasurer, C. C. Colyear, president, Colyear Motor Sales Co. Executive secretary, Sol Smith.

Ohio N. A. D. A. Meets

(Continued from page 21)
field. Cleveland's used car sales are considered the best in the country," he said.

Dealers' problems were discussed by Paul G. Hoffman, vice-president of the Studebaker Corporation.

Extension of apprenticeship work among boys will be fostered. Improvement of servicing methods will reduce the amount of time that automobiles must spend in service stations, it was pointed out.

The convention officially closed Thursday after a golf tournament at the Acacia Country Club.

Cannon Ball Baker Sets New Record

NEW YORK, Sept. 19—Setting a new record for a transcontinental truck run, Cannon Ball Baker arrived in San Francisco yesterday morning after driving in 5 days, 17 hours and 36 minutes from New York.

Baker drove a standard model T 50 General Motors truck, loaded with 5176 lb. of water from the Atlantic Ocean which will be dumped into the Pacific Ocean.

According to the San Francisco advices, he reported no tire changes or mechanical adjustments.

Cotton Price Gain is Reflected in Car Sales

SPARTA, GA., Sept. 21—Leading automobile dealers of the city report that with the marketing of the cotton crop and other crops which will be ready for sale in the next few weeks, the automobile market in this section, especially popular priced cars, is beginning to open up.

Many negro farmers are buying cars, both new and the used variety indicating that they are in a fairly prosperous condition despite the boll weevil in the cotton crop.

Ilerite to Make Light

CLEVELAND, Sept. 22—Establishment of the Ilerite Mfg. Co. has been announced. The company will manufacture specialties, out of which will be an automobile stop light equipped with a small motor, operating signal arms.

George Arthur Iler, president of the company, will move from Youngstown and be active in the business. A. L. Kroesen is vice-president and general manager.

Beveridge Moves to Boise

SALT LAKE CITY, Sept. 22—The Beveridge Motor Co., Star dealer, is moving to Boise, Idaho, in the next 10 days, where it will serve as distributor for the Star car with eleven counties. The Freed Motor Co., local Star dealer, will take the Beveridge company's location.



Louisville Dealers Buy Warehouse

This seven floor and basement building was recently purchased by the Louisville Auto Dealers Association for storage of members' new car stocks and will be headquarters of the organization. The structure has been extensively remodeled. In the near future a portion of the warehouse and grounds will be utilized for junking of obsolete cars. The building has a capacity of 500 cars

Relay Headquarters at Garford Factory

WABASH, IND., Sept. 20—Headquarters of Relay Motors Corp. will be moved to the Garford plant of the company at Lima, Ohio, following the recent purchase, but manufacture of the Commerce, Garford, Service and Relay lines will be continued at both the Wabash and Lima plants.

Officers of Relay Motors Corp. now are G. L. Gillam, president; W. E. Conway, vice-president; A. K. Taber, vice-president and secretary; J. M. Farr and H. Happersberg, vice-presidents, and I. A. Stull, treasurer. Department executives for the combined companies are W. J. Baumgartner, chief engineer; D. F. Domizi, consulting engineer; F. M. Kincaid, axle engineer; C. M. Dinkley, factory manager; H. E. Burke, purchasing agent; W. E. Conway, vice-president in charge of sales; H. W. Fenton, assistant sales manager; F. A. Smith, export manager; F. E. Borer, advertising manager; A. D. Turner, service manager, and J. A. Miller, traffic manager.

Adopt Merchandise Plan (Continued from page 20)

3. Should promise buyer price reduction in case of declining material costs only if customer agrees to like protection of supplier in case of rising material costs.
4. Should accept cancellation orders only when such action is unavoidable and only upon reasonable reimbursement for losses resulting.

5. Should insist on releases for delivery schedules in ample time to permit economical purchasing, processing and shipping of materials and refuse to modify releases after work is in process.

6. Should adhere to terms definitely agreed upon in extension of credit or granting of discounts.

After outlining the association's long study, Harry L. Horning, president, said: "The association has observed the effects of the practices here outlined and believes that the interest of buyers as well as suppliers would be served by their avoidance. Parts making by specialist manufacturers has reached a high state of development essential not only to the progress but to the very existence of the industry. Imposition of conditions damaging the stability of this business would create serious difficulties for parts buyers and would have a harmful effect throughout the entire industry.

"While recognizing the advantage to industry and the public of frequent turnover and low inventories the Motor & Accessory Manufacturers Association believes that care should be exercised to make every transaction equitable both to the seller and to the buyer," Mr. Horning said in urging the membership to follow the new plan.

Fritz Gets Cadillac La Salle

WICHITA FALLS, TEXAS, Sept. 19—The Fritz Motor Co. of this city, Studebaker dealer for a number of years, has acquired the Cadillac and La Salle franchise for this territory. These cars will be handled in addition to the Studebaker lines.

\$66,437,881 Excise Totals This Year

Revenue Half of Amount for 1926; Many Refunds Are Allowed

WASHINGTON, Sept. 22—A total of \$66,437,881.32 was collected from the automobile industry during the fiscal year of 1927 in the form of excise taxes, according to internal revenue receipts announced this week. The sum collected in 1927 is approximately half that collected in 1926 when the total revenue from automotive excise sources aggregated \$138,155,194.80.

Segregating the manufacturers automotive excise taxes a comparison of the two years shows that there was a tax of \$113,133,245 collected on automobiles and motorcycles in 1926, compared with \$66,437,881.32 this year from the same source. The truck tax which was eliminated this fiscal year netted \$6,817,099.67 last year, and the tires, parts and accessories taxes, also eliminated this year, yielded \$18,204,849.22 in 1926.

The report shows that during the two past fiscal years 25,480 claims were filed by garages, dealers, jobbers, retailers, wholesalers, and automobile and accessory manufacturers for refunds of illegally collected automobile taxes, claiming a total refund of \$3,777,524.15, which was allowed. The amount claimed, which was disallowed, is not indicated by the reports.

Buick Sales Set Record In Northern California

SAN FRANCISCO, Sept. 20—The many new interior color combinations in upholstery and trimmings are credited with a large number of the record 591 sales of Buick passenger cars in northern California during the first two weeks of August, by R. F. Thompson, general sales manager of the Howard Automobile Co. Buick distributor for this state.

Flannagan Joins Speed Spra

CHICAGO, Sept. 17—R. K. (Dick) Flannagan, formerly of the Larkin Automotive Parts Co. of Dayton, has been appointed sales manager of Speed Spra automobile washers by the Hayes Pump & Planter Co. of Galva, Ill., the company announced today. Mr. Flannagan has been connected with the automotive industry for the past 15 years.

Sells Hundredth Nash for Year

BUFFALO, N. Y., Sept. 22—Shirley Vincent, head of the Nash-Olean Co., Olean, N. Y., celebrated the last day of his business year, August 31, by selling his hundredth Nash car for the year. This was his second year as Nash dealer in Olean.

Gas, Oil and Hot Dogs—Drive In

WHIPPET is exhibiting a convertible coach to be used as a salesman's car. Scales, shown in a picture of the rear of this car, caused the office stenog. to ask if it is a fish truck.

Samuel Breakstone of Chicago, is charged by the Federal Trade Commission with misbranding spark plugs and other automotive merchandise. The name, Breakstone, certainly sounds like a very bad omen.

By winning the Pike's Peak hill climb in a Stutz, Glen Schultz wins a second leg on the Spencer Penrose trophy. An extra leg, or even an extra arm comes in handy with these race drivers.

Oakland makes a little change, according to newspaper item. Some of the other companies are showing a profit too.

Snow is now chief engineer of Auburn. That, at least should assure cool engines.

"Campbell Organizes Consulting Company," according to MOTOR AGE news item. That ought to help the automobile business keep out of the soup.

Utah automobile licenses this year are made in the shape of sheep. We suppose traffic violators will have their licenses painted black.

"Spanish Buyers Demand Well Finished Bodies," says headline in *Automotive Industries*. We admire those Spanish dancers ourselves.

Michigan has eliminated all speed laws and will substitute laws aimed at reckless driving. And to think that this—right in the state where the Ford was born—will not benefit Ford owners.

Knudson operated on, MOTOR AGE tells its readers. We sympathize and wonder if, after he has done with the surgeons, Mr. Knudsen will knot kneed a knice knifty rest.

Amarillo trade group has street style show. Having just returned from the Atlantic City beauty pageant, it was a relief to note in the Amarillo item that stripped chassis were barred and all the entries had shoes on.

"The seats of this car," went on the salesman, "can be made into a cozy bunk in two minutes that is just as comfortable as your bed at home." "Bunk" is probably right.

"Getting closed car glass clean," said the operator of a large automobile laundry, "is one of the hardest jobs." Evidently this is a part of the job that is hard to see through.

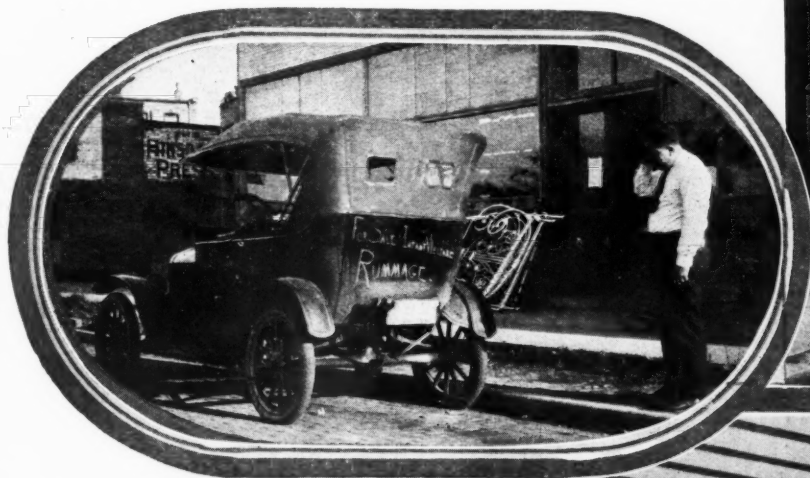
He had taken his girl out for a ride in his new car and had purchased her a bunch of roses. "These are lovely, dear," she remarked. "I believe there is still some dew on them." "No," he quickly answered, "but there is on the car."

John Cleary Says—

- ¶ *Each one of us in this business should say to ourselves every morning:*
- ¶ *"I am in the most wonderful business in the world.*
- ¶ *"Because everyone wants an automobile.*
- ¶ *"And because everyone who owns an automobile already wants something for his car in the way of maintenance and accessories, or he wants a new car."*
- ¶ *A man in any other business cannot start his day's work with such encouraging thoughts.*

Novelty Being the Spice of Life,

Have Some Novelty



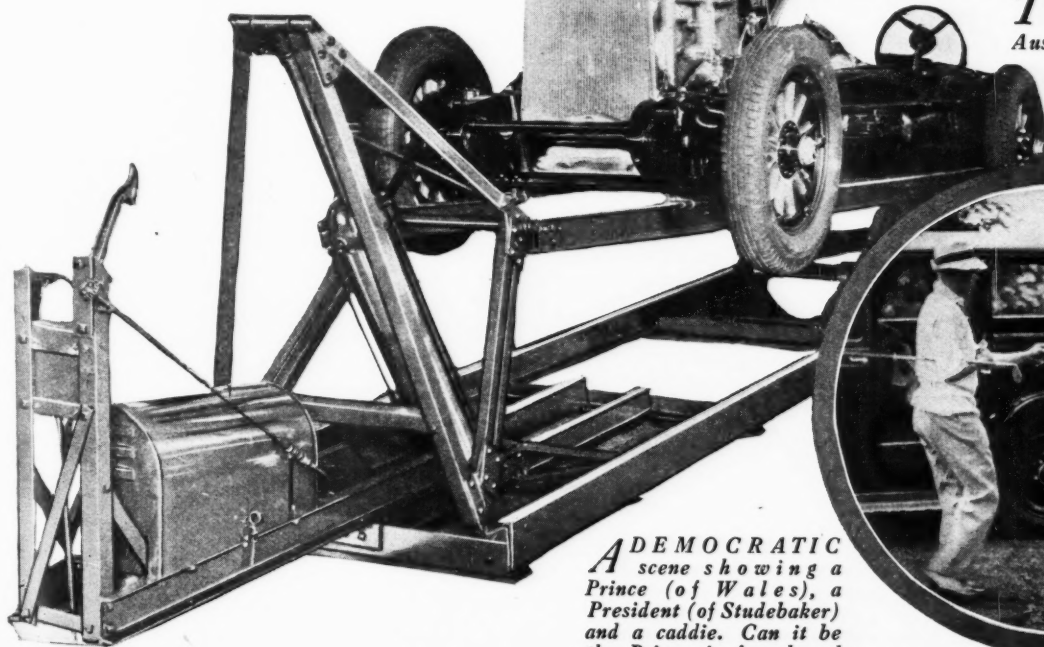
THE hoss scene at upper right is unusual enough to be picturesque. Quebec is this equine haven of refuge

ABOVE is a car whose owner tired of its trickiness, so he donated it to an organization conducting a rummage sale. The skull scratcher is very likely the new owner, wondering at himself for picking such a "lemon"

A NUMBER of Buick distributors utilized this Weaver Auto Lift to display the 1928 Buick chassis. It enabled salesmen to raise the chassis to the most convenient height for inspection and facilitated pointing out the various new features

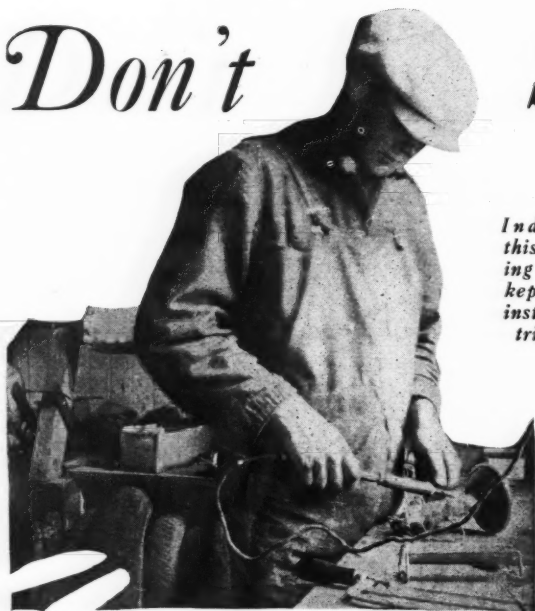


THE "Audible Oakland," the idea of General Motors, Australia, is a real display novelty. Questions put to the car are answered from within and objects held before the hood are identified



A DEMOCRATIC scene showing a Prince (of Wales), a President (of Studebaker) and a caddie. Can it be the Prince is frugal and purchasing "repaints"?

Don't Slight the Hand



Indispensable is this electric soldering iron which is kept handy for the installation of electrical accessories

*Admitted That It Is Indispensable
Not Take Good*

By C. Edward

IT is not enough to have a good supply of high-grade hand tools, but what is equally important these tools must always be in good condition and be so kept that the men can get them quickly," says Ray A. Huene, of Charles J. Dempsey, Inc., Chicago.

It is conspicuous that the shops that are making money for their owners and which amount to something as real business places are well supplied with good equipment. In the smaller shops this equipment is kept in the stock room and the stock man keeps track of it. Larger places find it worth while to have a special tool room man to be responsible for the tools.

In many cases the tool room man is a high grade machinist and in addition to doing special machine jobs keeps the reamers, taps, and drills sharp and watches the other items to see that nothing unnecessary is bought and sees that any broken tools are promptly repaired or replaced.

An interesting case of being "just out of that tool" came to our attention the other day. A special accessory that used two 5/16 in. bushings was being installed on an expensive car.

"Gimme the electric drill and a 5/16 drill," called the service man as he slapped two tool checks on the counter. The stock boy, who in this small shop cared for the tools, handed out the electric drill with a twist drill in it. The holes were drilled in the cowl of the car. Then plenty of profanity floated on the air. The all-important bushings were loose. They would rattle. The job would look badly.

The stock boy had handed out the wrong drill.

It was explained later that the 5/16 in. drill had been broken last week and the new one had not yet arrived. Probably 10 times the cost of a new drill was wasted in patching up the job so that the bushings would fit tight.

A high price to pay for

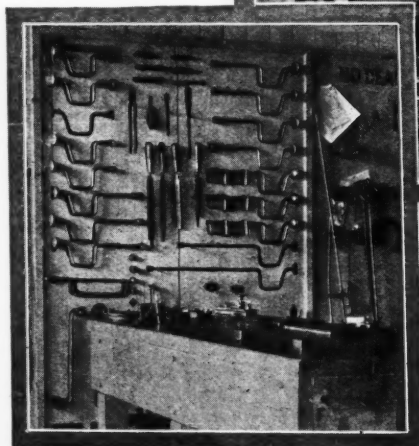
such inefficiency. But these cases come up every day and prevent shops from making the profits they otherwise would.

The first thing to do is to get the right equipment—and then keep it right.

Just what equipment a shop should have will be dealt with in a future article. Here let it be assumed that the shop in question has accumulated certain tools because it has felt the need of them.

This will probably include among other things precision instruments, reamers, drills, taps, dies, electric drill, valve grinder, wrench sets, saws, chisels, punches, drifts, pullers, files, and in the case of car agencies such special tools as may be needed for servicing some particular car or cars. In addition there will be the regular hand tools which each mechanic should have and the special permanent equipment installed in the shop. The problem at hand is the caring for the tools carried in the tool room.

One man should be responsible for them. They should be given out only on regular tool checks. This system is not a check on the individual mechanic's honesty but is the only way to tell where a tool is in case another man needs it. Tools should not be loaned to persons outside of the shop. The man in charge of the tools should report every broken tool to the proper



Upper: Complete small tool equipment is kept on the job in this electrical department

Left: Not a tool exhibit but an actual view in a shop that makes money on its service

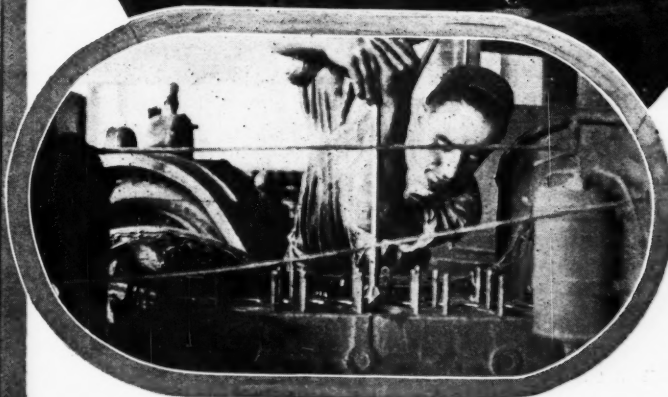
Tool *That's* Feeding You

*to Repair Shop Profit, Then Why
Care of It?*

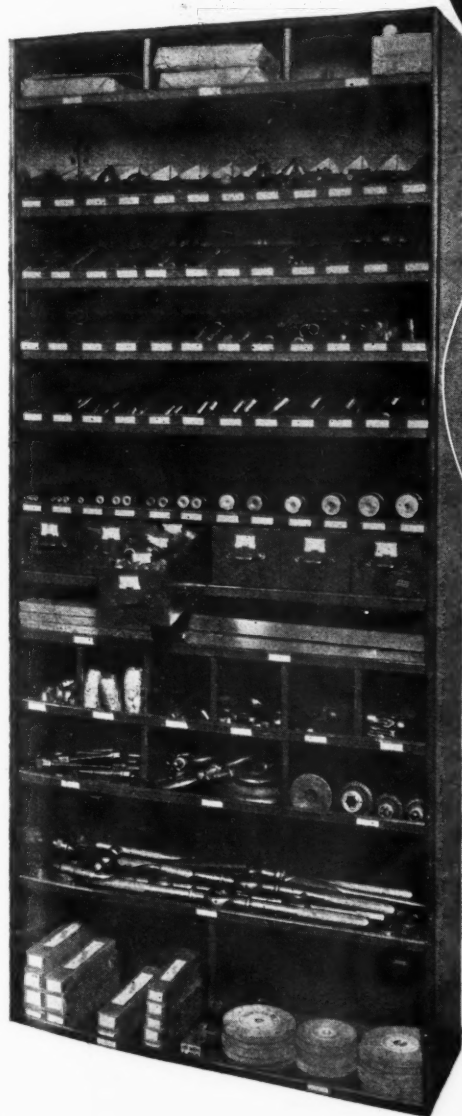
Packer

*Circle at right: A busy tool in a
brake service station. Right: Tools
in plain sight for quick service*

*Below: The storage of tools in this
steel tool rack protects them from
loss or damage, keeps them in the
smallest possible space, and makes
them instantly available*



*Left: Keeping cut-
ting tools sharp
means more rapid
repair work*



person so that repairs can be quickly made or a new tool purchased. Small items such as hack saw blades, files, taps, drills and the like should be bought in quantities depending on the size of the shop. The reason for this is that these tools wear out and break readily. These items are not expensive but to be without them is.

A tool storage system is one of the first requirements in an efficient shop. Those men who constantly use certain tools that are supplied by the shop should be permitted to keep them at their benches during the day on racks that make them readily accessible. At night they should, of course, be locked up.

Other tools should be stored in trays, drawers, or on shelves depending on the value and nature of the tool.

Precision tools are generally accurate down to .0005 in. ($\frac{1}{2}$ thousandth inch). Consequently they need the greatest care. They should be kept dry to prevent rust and should be frequently wiped with an oily cloth for the same reason. Dial gages come in wooden boxes that are good for storage purposes. Micrometers can be supplied with

DON'T SLIGHT THE HAND TOOL THAT'S FEEDING YOU



The installation of a spot light with the aid of several essential hand tools

Carbon cleaning the modern way with electric drill and wire brush

lined cases that protect them from dust and damage. Such instruments together with feeler gages, face plates, scales, depth gages and the like should all be kept in a locker drawer or in a cabinet that can be locked.

Among the edged tools we find reamers, drills, files, hacksaw blades and taps.

Probably the greatest enemy of such tools—or any tool—is rust. Every precaution must be taken to protect the tools from rust. Storing tools in a basement or near a battery charging outfit is sure to ruin them. Battery fumes seem to have a faculty of getting at tools and rusting them even when they may be oiled every few days. The answer is: Keep tools and batteries separate, and even then, oil all tools frequently.

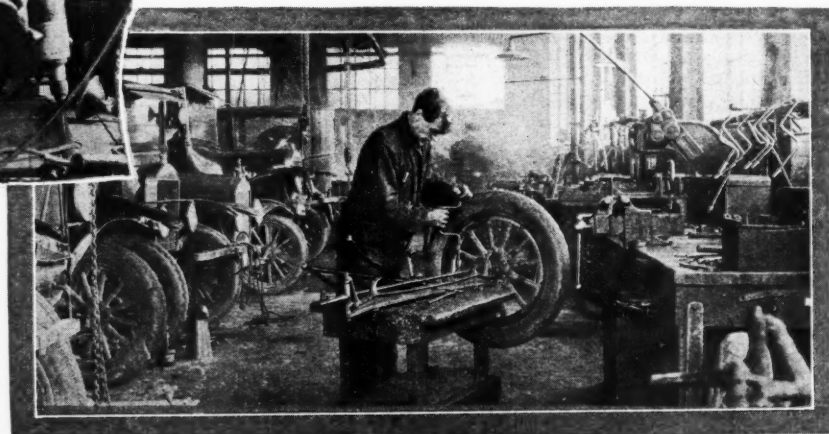
Edged tools should never be allowed to come in contact with each other. Reamers can be very conveniently and safely kept by arranging a sloping shelf with low partitions so that all reamers, from the smallest to the largest, can be kept in order for easy selection and fully protected from striking each other. Also this method of storage makes it easy to watch them for rusting and to wipe them with an oily rag quickly.

As a rule taper pin reamers, valve seat reamers, taps and dies come in boxes which serve as safe-keeping places. However, where extras are carried, holes drilled in wooden blocks make it easy to keep all of these items where the desired one can be found quickly and prevent damage to the tools.

Files when bought in packages come wrapped in paper. These items are edged tools and it is well to leave the wrapping on to protect these tools from each other, unwrapping only such tools as are needed. Frequently files are condemned as worn out when their cutting teeth are merely clogged. The use of a file brush

is a good habit to form. Separate bins should be provided for each size and shape of file. The closed package should be in each bin with one or two files on top ready for use.

Drill stands are a good investment for keeping the drill stock complete and affording a place where the needed drill can be quickly found. Drill sets from 1/16 to 1/2 in. come in paper rolls and as drills are broken or worn out the stand stock should be replenished from the paper roll and individual drills ordered to fill up the roll. In large shops or where it takes a long time to get new tools it may be well to have several rolls or several drill stands. As a rule the larger size drills, that is those over 1/2 in., are not so frequently used or broken, and consequently these are generally kept in troughs or grooves in a shelf in a manner similar to the way reamers are kept. Probably more drills and time are wasted by improper grind-



This man keeps his hand tools handy during the day. They are removed from the racks at night and locked up

ing than from any other one cause. One capable man should be responsible for sharpening drills.

As a rule taps bought singly come in separate wooden boxes that make ideal storage containers. Naturally, reserve taps should be kept in these boxes until needed for replacing worn out or broken taps in the tap and die set. Dies do not break up the way taps do and as their teeth are on the inside they are less likely to be damaged in storage.

Chisels and punches should be watched to see that they are kept sharp and straight and that their heads do not "mushroom." Such a tool with a "mushroomed" head is dangerous as chips may fly and strike another mechanic or may strike the user in the hand.

Pullers should be kept on a shelf or on pegs depending on their size and shape. Those having a large screw for forcing should be watched to see that the screw turns freely. It is common practice to hit the end of this screw when under tension with the result that the threads get out of shape. When this happens the screw jams, the puller won't pull, and much time is lost. Running a die over the thread and running a tap in the hole would correct such a condition in a hurry.

Heavy special tools will probably be carried best on low shelves or brackets. The care these will require depends on their nature. Wheel aligning gages of certain

(Turn to page 44, please)



One end of the used car showroom of Hudson-Oliver Motor Co., which is immediately in the rear of the new car showroom. Note the various painted wall mottoes, designed to emphasize the Hudson-Oliver used car policy

Using Judgment in Used Car Selling

Hudson-Oliver Motor Co. Avoided the Common Problem by Merchandising Them the Same as New Cars



F. H. Stanley, general manager of the Hudson-Oliver Motor Co., of Buffalo, New York

AFTER fixing certain rules based on experience, merchandise used cars as you would new cars. That, in a sentence, seems to sum up the successful policy of F. H. Stanley, general manager of the Hudson-Oliver Motor Co., 21 Northampton St., Buffalo, N. Y.

This company has been markedly successful in the handling of used cars. As Mr. Stanley so aptly put it, "We never permitted a used car problem to start."

How did he prevent it from starting, as he puts it? How did this dealer handle his business so that he would never have an accumulation of used cars on hand when he could not well afford to? What basic rules does he follow to keep control of the used car situation at all times?

In the first place Mr. Stanley believes that 100 per cent efficient automobile merchandising—and this includes used cars just as much as it includes new cars—demands that the dealer see to it that not more than a 30 days' supply of used cars are on hand at any one time during the year. Used cars are bought or taken in trade with this fundamental principle in mind.

This does not mean that the number of used cars on hand shall be the same in May as in December, to cite two radically different types of months in automobile merchandising. But it does mean that month by

month as automobile sales normally fluctuate, the stock of used cars on hand should be bought accordingly—should fluctuate with the demands of the season.

In line with this policy, Mr. Stanley states that the used car sales curve should almost exactly approximate the new car sales curve because "when people are buying new cars they are also buying used cars." Conversely, it has been his experience that when they are not buying new cars they are not buying used cars either.

Recognizing the existence of buying tendencies and their nature from month to month—even from week to week—the Hudson-Oliver Motor Co. swims with the sales current. It does not buck the current during months when used car sales are naturally slow.

Advertising and other selling expenses of used cars as well as special sales efforts and methods are not wasted during the fall and winter months. On the other hand this very conservatism in this regard during the dull selling season makes it possible to enter the season of normal demand with a heavy advertising appropriation and extra good selling effort which will bring home the bacon.

"We move our stocks and advertise our cars during the buying season for used cars. We push them before the normal slowing up of sales commences," said Mr. Stanley.

(Turn to page 42, please)

From Cellar Digger



This is the house that Jones built as the result of twelve years of effort in selling automobiles. He would have cause to be proud of his achievement, even if he had not commenced his battle with the world as a cellar digger at \$21 a week



HERE'S some snappy philosophy: Careers, like skyscrapers, are begun in the cellar. If

you think you are an exception go ahead and find out.

L. A. Jones, of Miami, Fla., years ago heeded that tart warning. He has built himself a successful career, and he began it in the cellar. A real cellar, ultimately furnished with everything 'most, and moist. This was 1912 B.V. (Before Volstead), remember. At any rate, and at a very diligent rate, young Mr. Jones swung a mean shovel for \$3.50 per—and not perhaps; regularly every week he drew a happy sigh and his \$21.

Ambition this chap had, a good pair of arms, and he wasn't exactly dead from the neck up. Perforce, and by physical and mental force, today he owns his own quarter-million-dollar skyscraper, including the mortgage, and there isn't any, and a cellar that has everything 'most but not a darn thing moist. That first cellar he helped to dig is blocks distant from his present imposing edifice. His case, then, is rather like that of the business executive whom it took 20 years to travel 20 feet—from the office-boy's bench to the president's chair.

But back to Mr. Jones' struggling, salad days. He saved his lucre and got learning—business learning. After that he got a job as an automobile salesman. He became, in time a good salesman. Within a month he was selling sedans, limousines, roadsters and trucks. More, he was selling himself. A real salesman knows what this means. It means, in brief, that usually when



L. A. Jones, Dodge dealer, the subject of this article

he sold a car he had that customer's new car business till the sands of the desert grew cold, and whether or not the engine did. Through *himself* he made his sold product give permanent satisfaction. It meant that he wasn't a one-time salesman, a "single shooter", that

to Bigger Seller

*L. A. Jones, of Miami, Fla., Started Life With Pick and Shovel and
Built Himself a Career and a Skyscraper*

By Joseph Faus

nearly every sale was a "repeat"; that within from one to four years the buyer would come back, inquire for "that obliging Mr. Jones," glance over the latest models and then ask how much he'd be allowed on the old bus.

In 1914, a year after Mr. Jones' initiation to motordom, the first Dodge car came out, and in 1915 young Mr. Jones came into the fold as its agent for the Miami territory. In comparison, his rise has been as steady, as sure, and as deserved as that of the sterling car and its farsighted manufacturers. He had looked over and carefully studied the new creation. He believed in it; in his own mind he considered it unexcelled in its field, and he decided it has a prosperous and popular future. He wisely concluded that this was the propitious time in the affairs of men, and cars, to seize and ride the flood tide on to the Golden Waters. And he did.

That first year Mr. Jones had two employees, and a rented building 30 by 50 feet. Later on he took on more courage and also the agency for Graham trucks. Precisely 12 years later, bringing events almost up to date, he had ninety-one employees and a magnificent building that is the pride of his city's "automobile row." In that period he and his salesmen have sold over 15,000 new Dodge cars and trucks. Within the past two years alone they have disposed of 3200 new cars.

This record deserves some paragraphs as to its cause.

To begin: Mr. Jones represents the type of salesmen who are under him, and it would probably surprise some of the "high pressure artists" to see how this executive and his subordinates secure and hold their fast-increasing number of new and used-car customers. They are the antithesis of the suave, glib type that can probably sell safety razors at a barbers' convention once—but that's all.

Mr. Jones isn't so all-fired aggressive, nor loud and persistent-talking. His voice is slow, almost languorous, but mildly confident and persuasive. His speech is flavored with humor and good-natured logic. But, a significant fact, he doesn't talk very much. He usually permits the prospective buyer to do the talking. There is, naturally, a method to this seeming madness. For while the eager and anxious prospect may ramble on and on about various matters, Mr. Jones, by a subtly inserted word every now and then, steers the conversation into the proper channel, never once losing sight of his objective. He answers all questions briefly, and before the prospect realizes it he has often talked him-

THIS Dodge dealer procured an agency 12 years ago and commenced selling cars and himself. Did he succeed? Positively! In that time his business volume approximated \$8,000,000, he has lost only \$4,000 out of sales and found it necessary to take back only 175 of the 15,000 cars he sold. This article tells how he cut his piece of cake.

self into signing up for a new car.

To give an instance of this sales psychology: Some years ago a relative of a former mayor of New York City was in Miami visiting, and it was known he was in the market for a new automobile. Mr. Jones went to see him, but the gentleman informed him that he didn't care for his car, that he was partial to and had always used another certain make. He added, incidentally, that he was also desirous of purchasing a boat. Now it so

happened that Mr. Jones had always owned a boat and he knows boats like Bermuda knows its onions. He politely volunteered to take the gentleman over to a yard at the Miami River, and the other gladly consented. After inspecting the craft there they drove over to Miami Beach to another yard and then back to the hotel. All the while Mr. Jones was pleasantly cognizant of the fact that anon his companion's glance traveled about the car's interior, that he observed the smooth fashion of its locomotion and the ease in which it was handled in the heavy traffic. Then as they were about to part, like Kathleen Mavourneen and her sweetie, forever, the New Yorker said: "By the way, how much is this car?" Mr. Jones told him, and the other calmly proceeded to write out a check.

Not a word, but a sale was made! The buyer had sold himself. Mr. Jones had cannily let him do his own investigating of the car's merits without undiplomatic persuasion or argument with him.

"High pressure hypnotism," Mr. Jones thinks, very often temporarily convinces a prospect that he should buy, and he does buy—but does the spell last? He himself firmly believes that too much conversational rope can, and sometimes does, hang a salesman. He thinks that by interlarding the car discussion with reference to ships and sealing wax, Babe Ruth and the President, the kids back home and the tariff on tomatoes, the would-be purchaser will glide almost of his own momentum into the harbor of ownership—of, for and by his own volition.

These, then, we judge, are the sort of customers that the Jones firm has in Miami. To prove the feasibility of this sales policy for the final and acid analysis—Are the buyers satisfied?

Well, consider the repossessed automobiles of this dealer in question. During his 12 years of business Mr. Jones has found it necessary to take back only 175

(Turn to page 44, please)

Overhauling The



A perfect service manager always has a man who can repair the boss' golf clubs and fishing tackle

A PERFECT service manager satisfies all customers.

A perfect service manager can always fix a car by following the owner's diagnosis.

A perfect service manager never allows himself to "get back at" a customer.

A perfect service manager can always repair a car at the owner's estimate of cost.

A perfect service manager never allows a customer to think there is a fault in the car he owns.

A perfect service manager never allows a customer to impose on the company he works for.

A perfect service manager never tells a customer he knows he is lying about the cause of trouble.

A perfect service manager knows just what the owner means when he sends in a car and a note saying "Fix the old bus up."

A perfect service manager can tell a customer over the phone what is wrong with his car and how much it will cost to fix it.

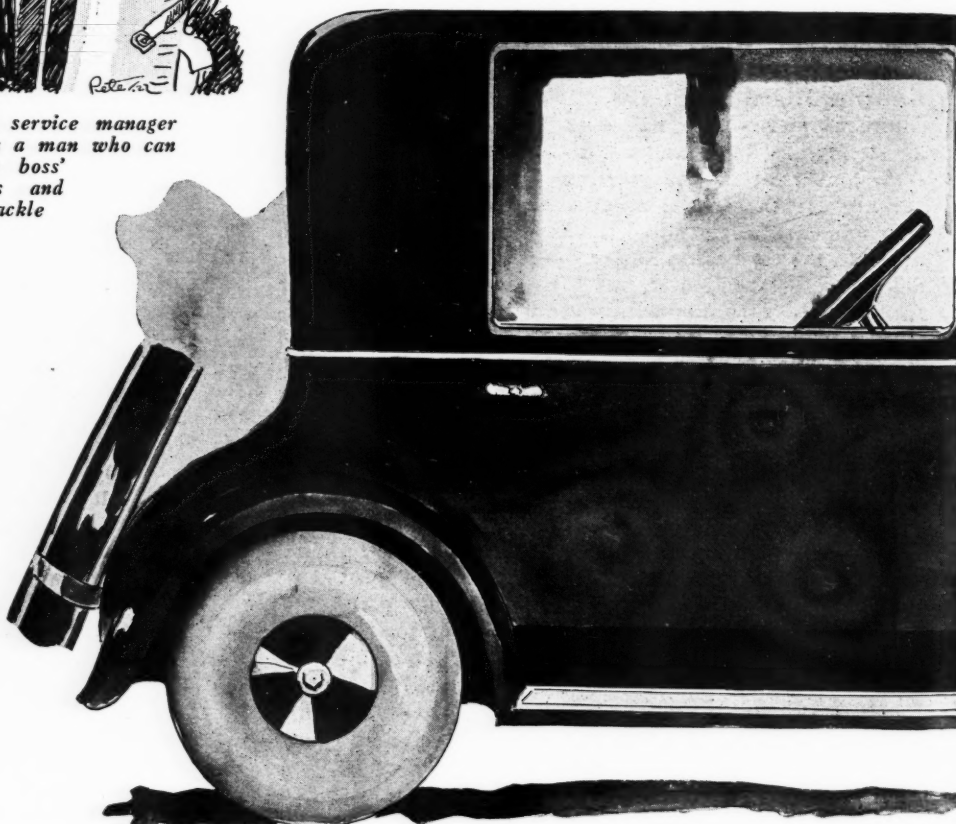
A perfect service manager can make a 1920 model run smoothly and quietly for two or three dollars.

A perfect service manager can turn away work on competing makes without offending prospects.

A perfect service manager will get up at two o'clock

A Prime Requisite

A perfect service manager, dear reader, can take five men and have a welder, a painter, an upholstery expert, a top man, a tire man, a battery man, an ignition expert, a radiator man, one man for new car conditioning and unloading, four men for service work and turn out all outside work promptly.



in the morning cheerfully to help some drunken reveler start his new car.

A perfect service manager can always take in another job for immediate service.

A perfect service manager can make a new car deliver the gas mileage the salesman promised.

A perfect service manager can give each new salesman five new prospects each day.

A perfect service manager never allows a salesman to learn anything that would shake his confidence in the cars he is selling.

Service Manager

Add Perfection

Further, the service manager who has attained perfection can keep the salesmen's demonstrators in perfect condition even though he can never get them in the shop for more than five consecutive minutes; who can give each new salesman five new prospects a day. If you know one of the breed, give us his address.

A perfect service manager will get up at 2 o'clock in the morning cheerfully to help some drunken reveler start his car



A perfect service manager can make a salesman understand the internal workings of a motor.

A perfect service manager can keep the salesmen's demonstrators in perfect condition—even though he can never get them in the shop for more than five consecutive minutes.

A perfect service manager can repair a car on a salesman's diagnosis and estimate of price.

A perfect service manager never contradicts anything a salesman has said in selling a car.

A perfect service manager never lies.

A perfect service manager is always respectful to salesmen.

A perfect service manager never quarrels with the parts man and can make any part the parts man does not have.

A perfect service manager accepts as the best, without question, the parts the parts man supplies.

(Turn to next page, please)

OVERHAULING THE SERVICE MANAGER

A perfect service manager accepts the parts man's statement that factory parts are always best without question.

A perfect service manager can adapt any accessory the parts man buys to any car the salesman sells.

A perfect service manager shields the parts man in all his errors.

A perfect service manager never complains because the parts man does not have essential parts in stock, and which he needs immediately for a rush job.

A perfect service manager can unload, adjust, equip, and otherwise prepare for delivery any number of new cars that may come in on any day, without slighting the work that comes in his shop.

A perfect service manager always has ready for immediate delivery any model car that is in stock.

A perfect service manager can make a used car run like new without spending over \$10.

A perfect service manager can overhaul a used car and have it back on the lot in about three hours.

A perfect service manager can always arrange any freak mechanical display the salesmanager can imagine.

A perfect service manager is never too busy to spend two hours listening to some jobber's salesman.

A perfect service manager never makes a mistake in buying shop equipment.

A perfect service manager always has competent mechanics.

A perfect service manager can keep a force of competent mechanics yet pay them only helper's wages.

A perfect service manager's mechanics never make mistakes.

A perfect service manager's mechanics always make a good impression on customers.

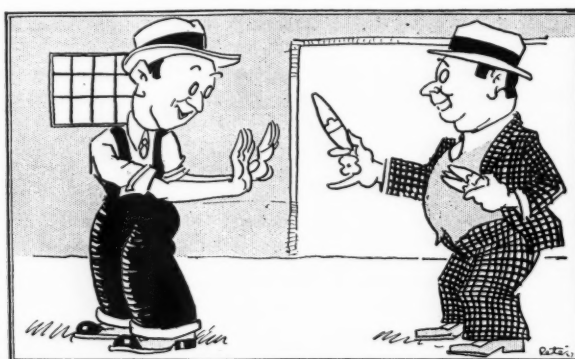
A perfect service manager always has a man who can repair the boss' golf clubs and fishing tackle.

A perfect service manager can always spare a man to fix the lights at the boss' house.

A perfect service manager never makes the mistake of charging the boss for work.

A perfect service manager can always hire a mechanic the boss wants.

A perfect service manager never objects when the boss takes a notion to disrupt the



A perfect service manager never has a "pet" customer and always refuses "smokes"

entire routine of the shop.

A perfect service manager takes orders from all other departments and executes them to the satisfaction of all concerned.

A perfect service manager never allows anyone to learn that sometimes serious things go wrong with new cars.

A perfect service manager can make an irate customer see that not having enough oil has more to do with bearings burning out

than the make or model of the car.

A perfect service manager can make a customer see that installing a new carburetor last week and guaranteeing it to give satisfaction is no reason why this week's differential trouble should be corrected without charge.

A perfect service manager never fails to send a customer out satisfied with his car.

A perfect service manager can take all the rattles out of a 1920 sedan.

A perfect service manager can take five men and have a welder, a painter, an upholstery expert, a top man, a tire man, a battery man, an ignition expert, a radiator man, one man for new car conditioning, and unloading, four men for service work and turn out all outside work promptly.

A perfect service manager never has "pet" customers.

A perfect service manager is always glad to stop a job promised out at a certain time to let a salesman have a mechanic to listen for imaginary troubles.

A perfect service manager can make a customer believe that some noise is necessary in every machine.

A perfect service manager never offends through not being scrupulously clean.

A perfect service manager enjoys having salesmen and their prospects talk to mechanics on rush jobs.

A perfect service manager never objects to a customer

staying with his car while it is being repaired and giving the mechanic on the job the benefit of his advice.

A perfect service manager likes to have a salesman bring in a man and say, "This is a friend of mine, treat HIM right."

A perfect service manager likes to have a salesman com-
(Turn to page 44, please)



A perfect service manager can take a bus of ancient vintage and make it run like a 1928 model at a cost of not more than \$10

The What and the Why of Split Field Generators

High Initial Output of These Generators Goes a Long Way Toward Keeping the Battery Charged While Reduced Output on Long Runs Protects Both Generator and Battery

ALL parts of modern automobiles are much more reliable and "fool proof" than were their predecessors. The electrical units are no exception.

In the case of the generators the Delco-Remy split field type is most interesting.

This generator has the interesting faculty of giving a high charging rate in cold weather, or when the car is cold and hence, when the battery can best stand it and then reducing the charging rate as the car warms up. This is all done without the use of resistances of any kind.

These generators are 2 pole machines with independent windings on each pole. The internal circuits of these machines are shown in the illustrations. Here it is clearly evident that these windings are independent of each other. In each case one main brush is grounded while the other is insulated and brought out to the cut-out or terminal. The upper field winding, which is the third brush field is shunted directly across the main grounded brush and the third brush. The lower field winding is shunted across the main brushes by way of a thermostatic switch which is grounded. The difference between this thermostat and the typical type lies in the fact that this one has no resistance across its points.

Until the generator heats up both fields are working together. After reaching a temperature of approximately 185 degrees F. the thermostat opens which entirely cuts out the lower field winding. This stays cut out until the generator cools down again and during this time the charging rate is reduced about one-third. When the thermostat is open the third brush field winding on the upper pole is working alone.

Trouble in these machines is easily located. If the charging rate is too low it may be that the thermostat points are not closing. To test for such a con-

dition disconnect the wire to the thermostat and ground it. If the generator then performs correctly the trouble is in the thermostat. If the difficulty lies in the

third brush field winding the output will drop to zero when the thermostat points are manually opened. If neither of these tests uncovers the trouble the difficulty lies in the armature, brushes, or brush holders.

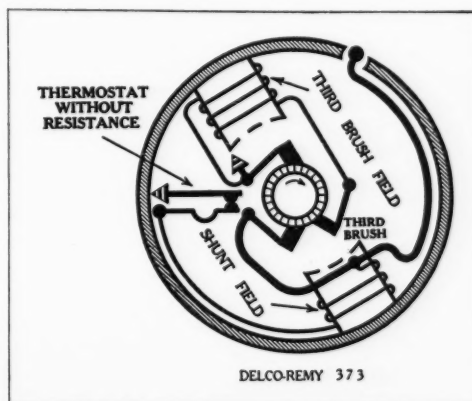
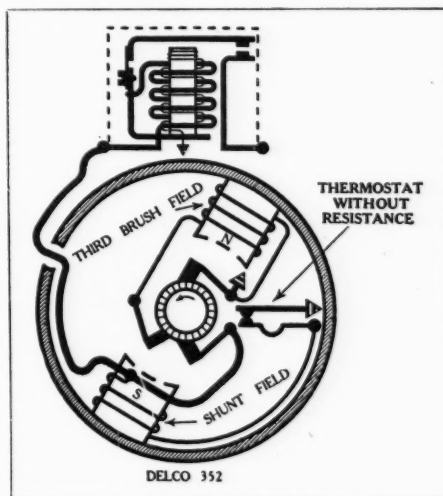
These machines should motor freely from a 6 volt battery showing 5.8 volts at the terminal and drawing 8 amperes. Locking the armature should cause the current to increase to 18 amperes and the voltage to drop to 5.3. The shunt field should draw 6 amperes at 6 volts. The third brush field should take 2.75 amperes at 6 volts. The brush spring tension should be 16 to 20 ounces.

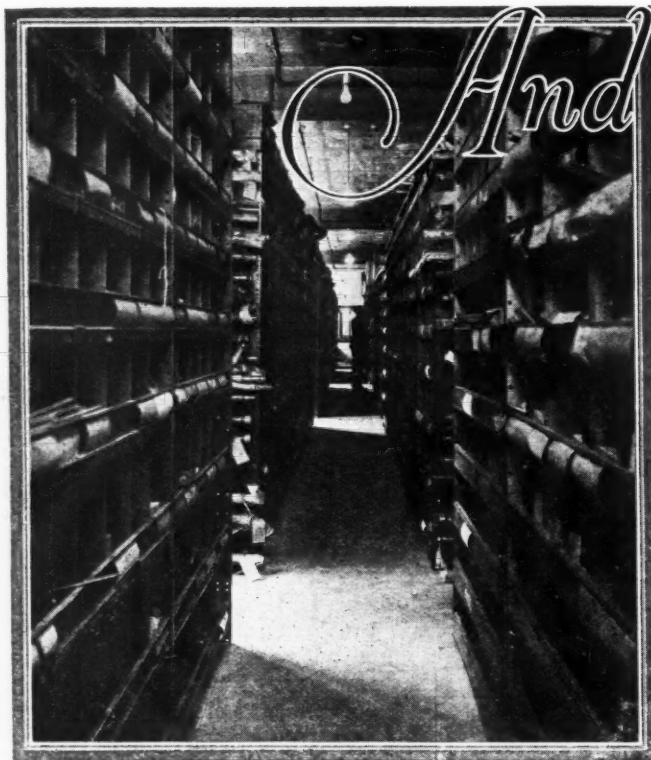
With the generator operating at a temperature above 185 degrees F. so that the thermostat is open the machine should perform as follows:

Amperes	R. P. M.	Volts
0	750	6.50
2	900	6.9
3	1000	7.0
6	1200	7.2
9	1500	7.5
13	1800	7.7
14	2000	7.9

At speeds in excess of 2000 r.p.m. this generator does not perform like a regular third brush machine but maintains practically 14 amperes at all times. When testing with the thermostat points closed the amperage is about 50 per cent higher than that shown.

A generator with the characteristics mentioned is not only desirable from the performance angle but is a machine on which "trouble shooting" is relatively easy and which as a consequence stands in favor with service men.





An aisle in the Ohio-Buick's parts department, which is housed on the first floor for the convenience of customers

WHEN better cars are built ——— will build them." If you read advertisements or work MOTOR AGE's weekly quiz, you'll readily know that the missing word is "Buick."

The Ohio-Buick Co. of Cleveland, Buick distributor for 32 counties of northeastern Ohio, of which G. G. G. Peckham is president, is well aware of this fact. Thus it was but a matter of natural psychology when a larger building was contemplated for Ohio-Buick to be influenced by its factory's slogan. To judge by the effort and thought that have been expended in the company's new quarters it is apparent that when it comes to bettering a thing, the Peckham organization is not going to

When Bet

*"Go-Get-'em George"
Peckham Will Doubtless Build Them*

sit aside and permit the factory to do all the bettering.

The new home of the Ohio-Buick Co. of Cleveland at 1900 E. Twenty-fourth St., is one of the largest and most modern automobile establishments in the country. It is the fourth home the company has occupied since its founding 14 years ago, and virtually doubles the company's floor space, besides providing unsurpassed facilities for every detail of sales and service work.

The new building has 175,527 sq. ft. of space, distributed over four stories and basement. Its ground dimensions are 303 by 136 ft. It is of fireproof reinforced concrete construction, of the beam and slab type, faced with buff sandstone.

The showroom, first feature of the new building to meet the eye upon entrance into the lobby, occupies the southern half of the front portion. It is notable for its spaciousness and its tasteful decoration. The walls and the five octagonal supporting columns are finished in light tan glaze, and the rough-finished plaster ceiling is broken up by a pleasing relief-work design, also in plaster. Flooring is of exceptionally beautiful tile. High plate-glass windows insure adequate lighting by day, while wall candelabra, ceiling fixtures, and 439 flood lights provide for brilliant night illumination. The room forms a pleasing and unobtrusive setting for the Buick models displayed in it, for it was designed to supplement their attractiveness rather than to focus attention on its own decorative features.

Dimensions of the showroom are 138 by 46 ft., with a



*The new home of the
Ohio-Buick Co., of
Cleveland*

ter Homes *Are* Built

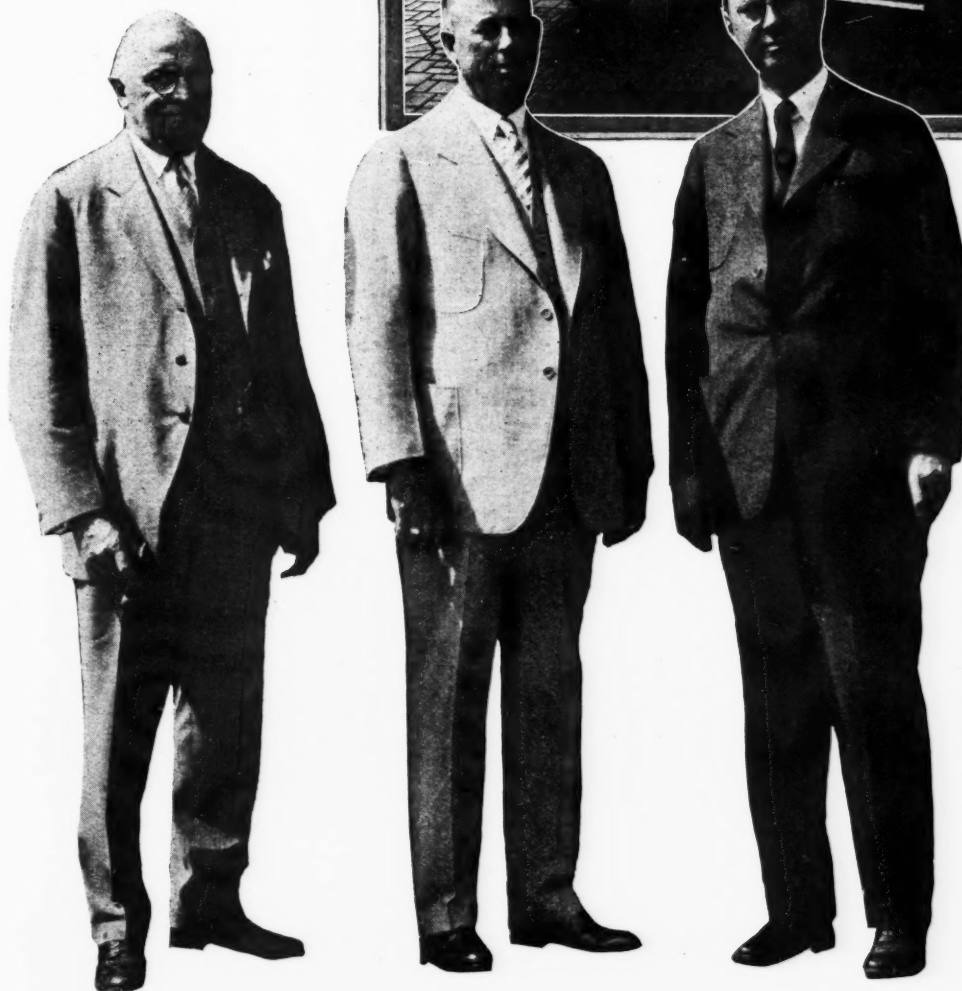
height of 22 ft. Its area is 6328 sq. ft.

Across the entrance hall from the showroom, occupying a full half of the ground floor front, is the parts department, consisting of offices and storage space. A complete stock of replacement parts for every Buick now in service is constantly on hand in this department and the basement space which supplements it, assuring immediate service to Buick owners throughout the company's wide territory. Some idea of the stress laid on its parts department by the

Below, left to right: C. W. Hunt, vice-president of the Ohio-Buick Co., of Cleveland; E. T. Strong, president and general manager of Buick Motor Co., and G. G. G. Peckham, president of Ohio-Buick Co.



Above: The artistic Ohio-Buick showroom with 1928 Buicks on display

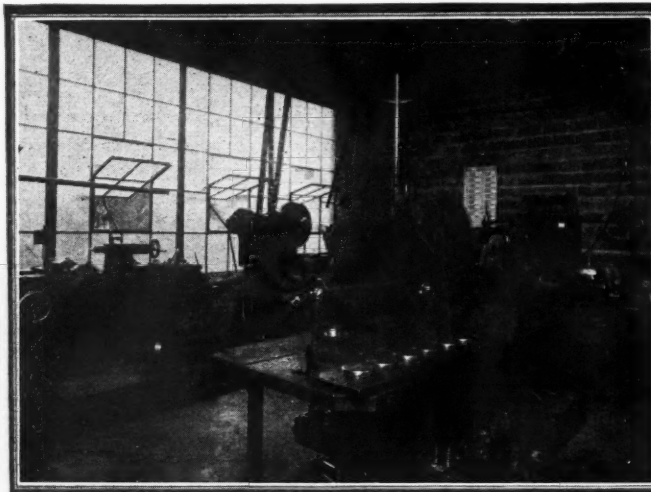


Ohio-Buick Co. may be gained from the fact that it occupies more than 16,000 sq. ft. of the most expensive and desirable space in the new building, an arrangement which is entirely new in construction of this sort, but one upon which President Peckham insisted.

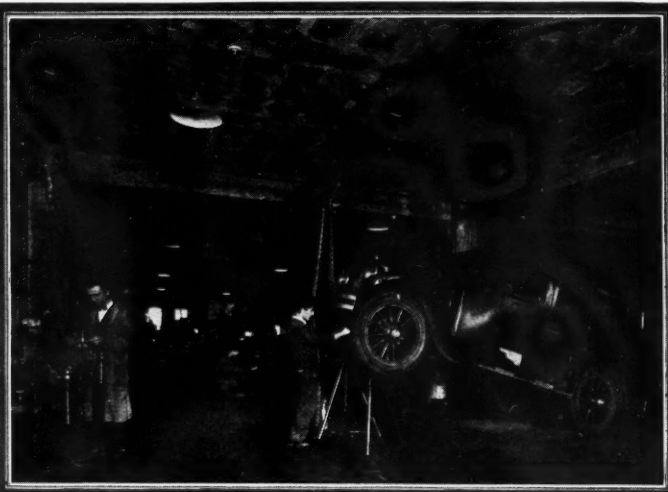
The remainder of the ground floor is devoted to service department offices, receiving and testing floors, which are entered through the extra wide doorways on the north, and to the entrance of the unusually wide double ramp leading to the stories above.

Here again Mr. Peckham's insistence upon radical departures from accepted service station practice found expression. The customer arriving at the Ohio-Buick Co. with a car to be serviced is met at the entrance by an attendant, trained in courtesy, who takes charge of the car

WHEN BETTER HOMES ARE BUILT



A corner of the machine shop in the Ohio-Buick service department



The well-equipped engine service department in the Ohio-Buick's new plant

after noting the work desired. The customer leaves the building via the showroom, without having to cross the receiving floor. This arrangement has caused much favorable comment, particularly among women customers, of whom Buick has a great many. Many women have complimented the Ohio-Buick on the promptness and courtesy with which they were received, and on the exceptionally light, clean and generally attractive appearance of the service receiving floor, in contrast to grease and gloom frequently found in such places.

The service shop, which occupies most of the second floor, is a model of completeness and efficiency. Every conceivable item of equipment is provided here for the servicing of Buick cars. A monorail hoist system entirely circles the service floor, to facilitate the handling of cars and heavy parts. A machine shop, including lathes, shapers, valve and cylinder equipment, brake relining machine, and electric furnace occupies one corner. A forge for frame and axle straightening is nearby. A running-in block, one of the features of the engine service division, illustrates the thoroughness with which the new plant is equipped, in keeping with Mr. Peckham's emphasis upon service.

General offices of the company and a large car storage space fill the third floor of the building, while the fourth houses a modern paint shop, 15,354 sq. ft. in area, with ventilated spray booths and other up-to-date equipment for Duco refinishing; a 32-table cafeteria, and a comfortable rest room for women employees.

Among the building's unusual features is the ramp, which is exceptionally well-designed. Its first stage sweeps along the whole west side of the building, starting at ground level, off the northwest corner of the testing floor, and ending at the southwest corner of the third floor. A wide doorway, halfway up, gives access to the second floor at about its middle. Separate ramps connect third and fourth floors, and fourth floor and roof, each arising southward from the middle of the west side, and a fourth ramp connects ground floor and basement. Inter-floor communication is supplied also by stairways, a service elevator, and a passenger elevator adapted to both manual and automatic operation. In so far as possible, each service department occupies a separate floor, an arrangement which minimizes interference and makes for efficiency.

Besides its storage space for cars and parts, the large basement houses a progressive wash rack, consisting of a long incline down which several cars may be rolled at once, while workers on either side wash and dry them.

Fire protection includes automatic sprinkler system, fire alarms and watchman service, chemical extinguishers, and 15 fire hose stations. Each floor is equipped with two fire doors, and there are three fireproof stairways in the building. Seven forced-draught ventilating systems supply the building with pure air, and unit heaters and ventilators comprise the heating equipment.

The building is surmounted by a huge electric sign, in the form of the Buick trade mark—one of the largest of its sort in the country. Elevated high in the air on a three-sided frame, the triple sign is particularly effective at night.

The Ohio-Buick Co. is one of the outstanding business successes of its state. It was founded in 1913 by its present president, Mr. Peckham, to supplant the Buick branch formerly maintained at Cleveland. Mr. Peckham had had long experience in carriage and automobile work, ranking among the oldest members of the Buick family by virtue of having sold one of the 34 Buicks produced in Buick's first year.

Aside from the steady growth which it has enjoyed, the Ohio-Buick Co. is notable as the only Cleveland automobile firm to handle one car and one only, over so long a period, a fact which many persons credit in part for its growth. The officers, Mr. Peckham, president; C. W. Hunt, vice-president; J. J. Neville, secretary, and H. E. Gilbert, treasurer, all have held their positions since the year the firm was founded. During this 14-year period the personnel of the company has multiplied many times. Today officials and employees number 193 persons.

The new building, with its heavy emphasis on all phases of service, is a concrete embodiment of the high ideals which have actuated Mr. Peckham in all his relations with the public. While sensible of the establishment's beauty and its many provisions for the comfort of its employees, he feels it is upon the basis of its equipment for service that its principal claim to distinction rests. In the new Buick building, Cleveland and adjacent territory enjoy service facilities which have few equals anywhere in the world, and which are surpassed nowhere.

Clip Those Coupons!

The Contest Finish Flag Will Go Down at Noon
on Saturday, October 15

*All Votes Received Up to That Day and Hour
Will Help Your Jobber Salesman Candidate
to a Position of Advantage in the
Big Popularity Contest*

NOW, brother, let's get right down to business and put the old scissors to work. Cut the coupon from this page and send it in as a vote for that wholesale salesman whose efficiency and popularity entitle him to participate in the \$2,075.00 melon, which is the cash value of the awards to be made in the *Motor World Wholesale* popularity contest.

The race started during the early part of July, since which time vote coupons have appeared regularly in the issues of *Motor Age*, *Automobile Trade Journal*, *Commercial Car Journal* and *Chilton Catalog & Directory*.

These are the Chilton Class Journal publications subscribed for by the retailers, garage and service station owners of the automotive industry.

Members of the retail trade are the voters in this contest. Retail dealers, retail salesmen and garagemen are entitled to vote. The subscription to any of the publications named above does not necessarily have to be in their names.

Thousands of votes are already recorded. Thousands more will come in before the contest closes. But the vote is so split up among the many candidates that any dark horse may win. So get out the old scissors, cut your coupons from this and all issues of *Motor Age* (since June 30), fill them in and mail them to the Contest Editor of *Motor World Wholesale*.

First, second and third cash prizes of \$100, \$50, and \$25, respectively, will be awarded to the three leading candidates in each of the nine trading zones of the United States.

Here are the nine zones:

NEW ENGLAND: Maine, New Hampshire, Vermont, Rhode Island, Massachusetts, Connecticut.

MIDDLE ATLANTIC: New York, New Jersey, Pennsylvania.

SOUTH ATLANTIC: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida.

EAST NORTH CENTRAL: Ohio, Indiana, Illinois, Michigan, Wisconsin.

EAST SOUTH CENTRAL: Kentucky, Tennessee, Alabama, Mississippi.

WEST NORTH CENTRAL: Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

WEST SOUTH CENTRAL: Arkansas, Louisiana, Oklahoma, Texas.

MOUNTAIN: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.

PACIFIC: Washington, Oregon, California.

The zone first prize winner who receives the highest vote of all contenders will receive, in addition to his \$100.00 first zone prize, the championship prize of \$500.

Who is going to be the *champion jobber salesman*? Nobody knows, and the status of the vote at this writing would make it unsafe to guess which zone will have the distinction of claiming the most popular automotive wholesale salesman in the United States.

It's a great race! Use your coupons. Make them work for your man!

Make this coupon work

MOTOR WORLD WHOLESALE Popularity Contest for Wholesale Salesmen

Contest Editor

Motor World Wholesale

Chestnut and 56th Sts., Philadelphia

In the wholesale automotive salesmen's popularity and efficiency contest I vote for:

Name of salesman

Name of his firm

His firm's address

Your signature

Your firm name

Address

M. A., September 22—This ballot is for ONE vote.

Note: A FOUR VOTE Coupon will appear in the next issue of *MOTOR AGE*.

USING JUDGMENT IN USED CAR SELLING

(Continued from page 31)

Another fundamental principle which Mr. Stanley follows in taking in used cars is that used car purchases for any one month "ought never to average in gross dollars more than 20 per cent of new car sales for the same month in gross dollars."

By following this principle it is possible to keep used car stocks down in the months they should be reduced so that Hudson-Oliver does not go into the fall and winter months with a heavy used car inventory. Mr. Stanley believes that the ratio of 20 per cent of used car purchases in gross dollars to receipts in gross dollars for new car sales in any one month, is safe and will bring the desired results if observed along with the proper selling efforts.

In connection with the trading of used cars Mr. Stanley is violently opposed to the use of the word "appraiser" in designating the person who sets the purchase price. He believes that it has a meaning in the mind of the customer too much like the word "trade." Often the user of the offending work, Mr. Stanley has found, puts the customer on his guard. He immediately begins to try to figure out some way to beat the "appraiser." He is at least fortified and ready to argue about any offer that is made.

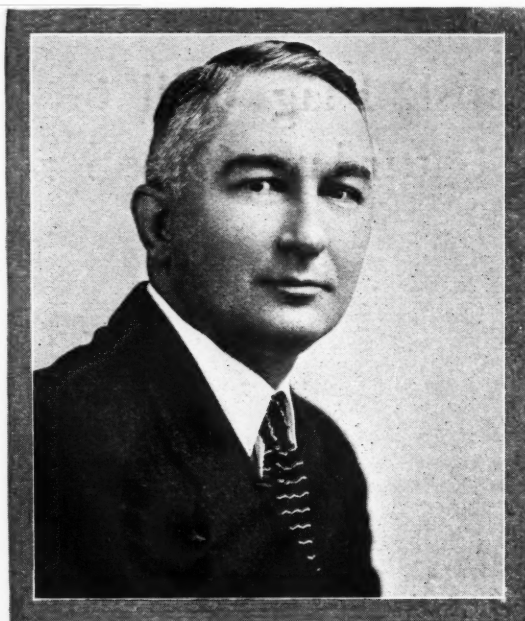
The Hudson-Oliver Motor Co., heretofore has adopted the use of the word "buyer," or the expression "our used car purchaser," with considerable success. He says that when a prospect is told that their "used car purchaser" will price his car, the words have no unpleasant associations for the prospect. The prospect is not so nervously on his guard to thwart any offer that is made as he would be if he was confronted by an "appraiser."

Another word of which Mr. Stanley disapproves is "allow." He believes that customers instinctively resent the word "allow." Therefore in the Hudson-Oliver headquarters prospects are always told that they—the Hudson-Oliver Motor Co.—will pay them so much for their car. "We will give you so much money . . ." or "we will sell you our new car for so much money." This works much better. The word "allow" has fallen into bad repute when considered by automobile owners seeking to trade in old cars for new.

Another fundamental factor in the Hudson-Oliver plan of handling cars is that the new car prices shall not be inflated in order to inflate used car purchase prices.

"Fundamentally this is bad merchandising," declares Mr. Stanley. "The big thing after all for the customer to consider is not the amount of trade-in value he receives but the difference in money which he has to pay."

In the long run Mr. Stanley believes that it is bad business from every point of view to inflate the new



George A. McManus, sales manager, whom Mr. Stanley credits largely with the successful operation of Hudson-Oliver used car policy

car prices in order to be able to inflate the price of the car the prospect desires to trade in. When the true situation is discovered, as it is likely to be sooner or later, the customer promptly loses confidence in the dealer.

Used car purchase prices at the Hudson-Oliver headquarters are set by buyer demands. The only market values for used cars that there are, are those which are fixed by buyer's demands according to Mr. Stanley's policy.

Taking this attitude as a basis for purchase of used cars, it is possible to take them in at prices which will enable a fairly quick turnover at the right price. Being able to sell used cars at market prices not only makes it possible to turn them over quickly but also builds consumer confidence and creates permanent customers.

"We never forget," said Mr. Stanley, "that a used car is worth on the market just exactly what the public will pay, and not necessarily what we have given for it. Therefore we hold no car for a price even though it happened to be a bad purchase through poor judgment on the part of our buyer. We turn our stock quickly at the market."

In other words the used car purchases are kept down in market price because no one with the company has any illusions as to what used cars will bring. They know what they will be priced at, what they will bring in a reasonably quick sale and therefore must be bought accordingly.

Mr. Stanley says it is also a policy of the company to take in no orphaned cars and no so-called "junkers," under any consideration.

This company reconditions, repaints and guarantees all used Hudson-Essex models which are accepted in trade for resale. This policy helps build up the reputation of the cars which the firm handles in its new car showroom.

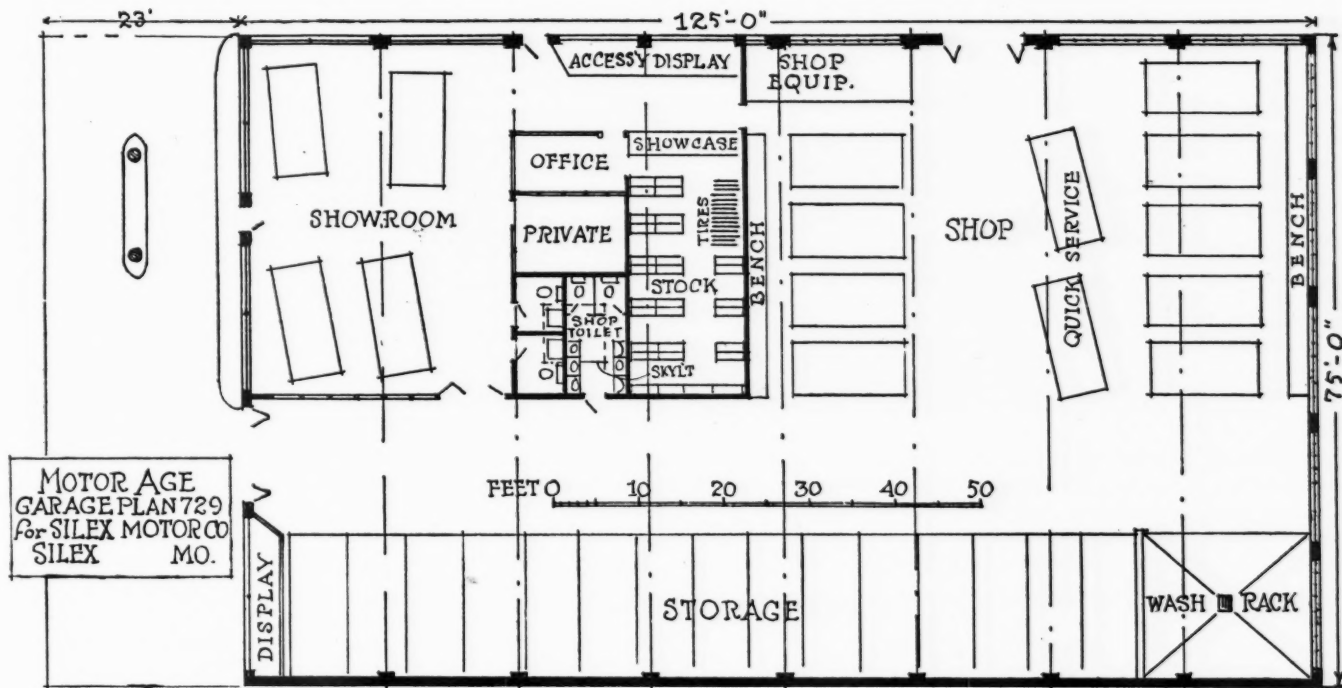
Repairs that are necessary to put a car into good running condition are done on all other makes of used cars accepted in trade before they are offered to the public.

Used cars that are taken in and are in such good condition that they may be immediately offered for sale are never offered at a price such as would be the case in offering a car which had been reconditioned. In other words, if a used car purchaser gets a used car "as is" without any work having been done on it, he gets the benefit of the "as is" price.

A Hudson-Oliver used car customer is told just what he is getting in his used car. Mr. Stanley states that only honest statements are permitted in selling used cars and that this and the general selling policy are based on the thought that "truth builds confidence and confidence builds business."

Will Build at the Intersection of Two State Highways

By Tom Wilder



The plan shows the filling station in front, but for the reasons stated, it would be better at the side. Another reason is that the space beside the building at the rear would be fine for tire changing and quick service

WE are under the impression that you give to your subscribers without charge ideas and plans on buildings and in view of the fact that we plan the erection of a new building at an early date we are giving you some ideas of our own together with some details and would greatly appreciate any suggestions that you might be able to give us.

This building will be used to house a Ford agency, the size to be about 75 x 125 ft. and to be built of brick or hollow tile. The lot has a frontage of 146 ft. and a depth of over 200 ft. but we desire not to use any more of this ground than necessary. (Please refer to the accompanying crude drawings.) The frontage, which will be 75 ft., is on main street or K street; the depth, which will be 125 ft., is on R street. Both of these streets are through highways. We desire a drive-in entrance on main street and a shop entrance on R street; we want a show room space for four cars, a private office and an open space office directly in front of this for stenographer and office equipment, a parts room accessible for both shop and retail customers, shop room for five cars to be worked on at once, also room for shop equipment, wash room, paint room, space for tire changes and quick repairs. We desire to feature gas and oil sales and want drive-in station

accessible to both K and R streets, as both of these streets are highways. This must be done, however, without marring the appearance of our building and without detracting from the window display. We desire storage space as large as possible. We desire rest room for men and women, a basement about 30 x 75 ft. for furnace and bulk storage.

We have plenty of room and could set the building back on this lot if more desirable; however, the other buildings on street are close up, that is on one side, there are none on the other.—Silex Motor Co., Silex, Mo.

ONE of your requests is a drive-in filling station that will be accessible to both streets but that will not mar the appearance of the building or detract from the window display. This we consider pretty nearly an impossibility as cars stopping for gas and oil are bound to hide the show windows from other passing cars. There is the compensation, however, that the cars that are stopping get a view of the display that they would never get if there were no filling station and this is the real object of the filling station, after all; aside from sales of gas and oil it is what might be called a "come-on" for the other departments of the establishment.

Rather than cut into the corner of the building as is often done we would advise setting the building back but as you say this will throw it out of line with the other buildings and to avoid this why not set it back from the side street. You could set it back 20 to 23 ft. and still have 50 ft. or a little less of vacant space left. Another argument is that the shop entrance and parts and accessory display and store are here where you could get the maximum benefit from the contact.

This has been a difficult size and shape to arrange to satisfy your requirements and we have been tempted to suggest other propositions considering that you had some latitude but after trying several times we believe you will be satisfied with the result. No paint shop has been planned and we are not sure whether you mean a car wash room or one for the employees. The paint shop can be arranged in part of the space at the rear side of the shop and if a more extensive wash and locker room is desired than afforded by the shop toilet with a wash basin, this room can be made larger at the expense of the parts room.

The basement has not been shown but the best place would be at the rear where an outside stairway could be built in either on the side or the rear. Coal could be put in from the rear.

FROM CELLAR DIGGER TO BIGGER SELLER

(Continued from page 33)

cars out of the 15,000 he has sold. He has lost \$4,000 out of sales which in that period total considerably more than \$8,000,000. Not so bad. In fact, pretty darn good!

Incidentally, Mr. Jones is of the emphatic opinion that all automobile companies should unite together and agree never to sell a car unless at least half its cost price is planked down when the machine is taken out. He contends that the evil of repossession would to a large degree be eliminated if a purchaser had to pay down at least 50 per cent of the cost price of the car.

Mr. Jones, of course, can't put this idea into effect, but he has another theory that has proved its practicability.

Six years ago he suddenly realized that he had some bad accounts outstanding in his repair department, and that he was not making as much there as he should. The other Miami companies also operated on the credit basis in mechanical departments; but now Mr. Jones took a revolutionary stand—cash for all repair work. Cash or no work at all, no matter who the customer, old friend or new, stranger or acquaintance.

Naturally, at that stringent demand some of the volume of trade in his repair department dropped off, but

HIGH pressure hypnotism, Mr. Jones thinks, very often temporarily convinces a prospect that he should buy, and he does buy—but does the spell last? Mr. Jones firmly believes that too much conversational rope can, and sometimes does, hang a salesman. He thinks that by interlarding the car discussion with reference to ships and sealing wax, Babe Ruth and the President, the kids back home and the tariff on tomatoes, the would-be purchaser will glide almost of his own momentum into the harbor of ownership.

gradually it picked up till it reached the old peak—and then went beyond it! For, apparently, the word got 'round about the more efficient and business-like basis of the Jones company. It did good, conscientious work—guaranteed satisfaction—but you had to "shell out" for it right on the spot, and so forth. Today this firm has a more than commendable amount of repair work.

Here is another decided departure from the conventional that Mr. Jones works on: While he is an enthusiastic believer in most kinds of legitimate advertising, and

does advertise extensively and generously, he never advertises his used cars for sale. His *name* sells them for him—a name that's tantamount in his city to good products, honest treatment and fair prices. His customers know this name and they tell their friends and their friends buy. It's a case of "personality advertising." And to say that he has a yardful of second-handed junk would be, like Mark Twain's reported death, very much exaggerated. The contrary is true.

This, then, is L. A. Jones and what he has done. Of course he's made some mistakes, but wisely he's profited by them; they have become signal lamps that warn him from the ditches in the future.

Overhauling the Service Manager

(Continued from page 36)

plain to the boss that owners are being overcharged.

A perfect service manager likes the factory's habit of making changes without bothering him by telling him the details.

A perfect service manager understands why the office always destroys service letters.

A perfect service manager keeps his mechanics neat and clean.

A perfect service manager must sell accessories and tires for the parts man.

A perfect service manager likes to have the boss send his friends down with their "orphan" cars which will take shop room until parts can be shipped from some distant factory.

A perfect service manager never employs high-priced mechanics, yet always has a man capable of taking charge if he is sick or called away.

A perfect service manager keeps a well-equipped shop but never spends much for tools.

A perfect service manager can always remember in detail what he did to Mr. Smith's car last year when it had the bad knock.

A perfect service manager can detect in a 15-minute inspection of a newly unloaded car any flaw the factory inspectors missed.

A perfect service manager can take the class of men he can hire for what he is allowed to pay, keep them working at top speed all the time, and never turn out a job that is not perfect.

Don't Slight the Hand Tool

(Continued from page 30)

kinds should be kept in squared frames to insure their accuracy. Bending irons, jigs, fixtures and other special equipment for any particular car can generally be carried on shelves or wall racks especially designed to handle the parts.

Neatness and efficiency of the tool room result by painting the outline of the special tools where they are kept in white or gray so that anyone will know just what tools are out and where they should go when they are returned.

Electric drills and electric valve grinders are faithful friends and hard workers when given a little attention. Just because these tools are sturdy they are frequently abused. Dropping them is not unusual. Picking them up by the cord is sometimes noticed. Such things result in failure of the tools—generally on a rush job—or result in shocking the operator.

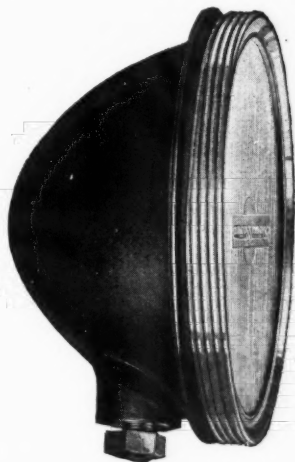
Such failures are obviously not the fault of the equipment. To replace a badly worn cord, to tighten the attachment plug when it is loose, to clean and oil the drill as needed, and to give it the consideration due a good piece of equipment is time well spent.

While wood is all right for making trays for certain edged tools, steel is the ideal shelving material. Not only can tool cabinets be bought ready made in steel, but steel does not splinter. It is easy to keep clean because it does not absorb oil—and for that reason reduces the fire hazard. Furthermore it is strong and safe for heavy loads and takes up the least possible space.

New Accessories and Devices

Road Light

ONE of the latest products announced by the Stewart-Warner Speedometer Corp., 1826 Diversey Pky., Chicago, is this road light, designed

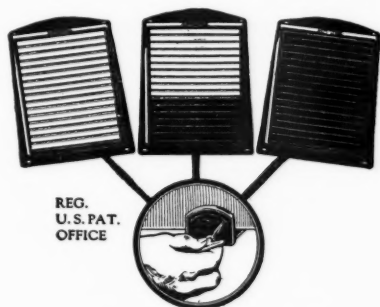


for installation on the bumper, tie-rod or other convenient low point. A special prismatic lens projects a broad beam that lights up the dangerous roadside ditches and provides excellent illumination when driving through fog. As the light ray is directed downward from a low point it cannot blind oncoming drivers and therefore may be left on at all times.

Construction is of brass throughout, attractively finished with nicked rim, which is easily removable when necessary to change bulb. Lists at \$8.00 complete with mounting bracket.

Radiator Shutter

FEATURES of the Moto-Gard shutter stressed by the maker are as follows: Lower section of leaves can be closed while upper section remains open, providing extra protection at the bottom of the radiator where water is always coolest; complete protection, all leaves closed, for severe weather; full opening of all leaves when radiator protection is not necessary; one-piece



frame; narrow, rigid leaves opening inwardly; tension springs that prevent rattle; leaves nest snugly together; mechanism concealed and stamped from

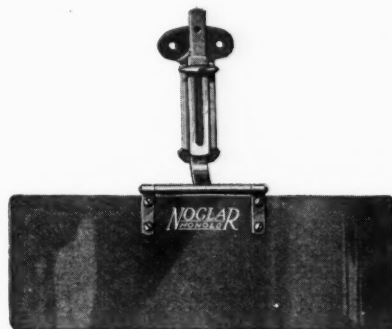
heavy gauge steel in one piece.

Moto-Gard, Jr. for Fords and Chevrolets is a lower priced shutter, the same as Moto-Gard, except that leaves are controlled in one section by a pull dash control. Manufactured by The Brewer-Titchener Corp., 40 Port Watson Street, Cortland, N. Y.

Anti-Glare Device

HONOLD NOGLAR, for all open and closed cars, has been designed for the purpose of providing every feature demanded by the present day motorist against light glare. A mere downward movement of the shield provides safety. A slight upward pressure of the finger removes shield from the driver's vision. Especially designed hinge provides proper tension to hold the shield at any angle. This tension is maintained by tightening the upper hinge screws. There is no chance of it lowering through vibration of car while traveling at great speed or over rough highways.

A dealers' counter display stand



featuring the Noglar is available as an aid to sales.

Manufactured by Honold Manufacturing Company, Sheboygan, Wisconsin.

Tool Set

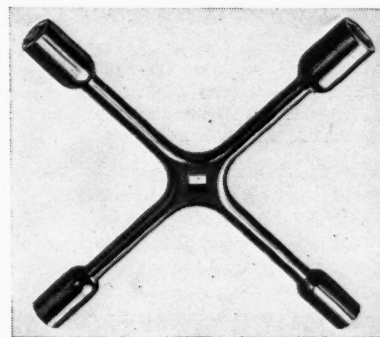
TWELVE vari-sized sockets, half and three quarter inch male plugs, ten-inch "T" handle and seven-inch extension bar, comprise the new super-socket set recently announced by Splitdorf Electrical Co.

This new Bethlehem socket wrench set was especially designed for service stations, garages, oil-filling stations and repair shops. It is stated that the tools will speed up the job and save time, allowing the users to handle more cars in less time.

The sockets are manufactured from the best grade solid bar steel carefully broached to size, chamfered, knurled and tapered to fit over nuts and bolts in tight places. The surface is copper-plated to prevent rust. The sockets are hexagonal and square. The "T" handle is with square adapter and the extension bar with half inch square socket.

Rim Wrench

BLACKHAWK No. 5204, "Deep-4 Universal Rim-Wrench" is a rim wrench that will take any rim nut job, whether wood, disk or wire wheel. Unusual depth of sockets allows easy

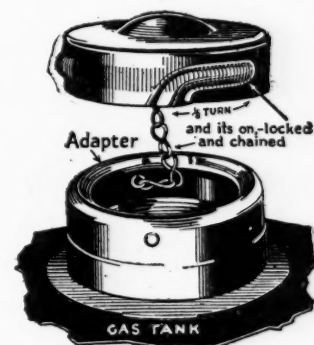


access to tire carrier nuts, regardless of extra long stud projecting through nut. Length of handles gives leverage when used as a T-wrench; may be used as L-wrench with hand support. All sockets heat-treated and electric butt-welded to stock. Half-inch square broached at center of handle makes the 5204 adapted to use with standard interchangeable extensions or lugs, widening the field of its application to the interchangeable type of wrench.

Socket sizes $\frac{1}{2}$ in., $\frac{11}{16}$ in., $\frac{3}{4}$ in. and $\frac{7}{8}$ in. hexagon. Net weight $2\frac{1}{2}$ lb. List price, \$2.50 each. Made by Blackhawk Manufacturing Company, Milwaukee, Wisconsin.

Gas Tank Cap

THE Monmouth $\frac{1}{8}$ turn gas tank cap is put on or taken off with a one-eighth turn. It is fastened to the tank as shown in the illustration. Adapters made with both inside and outside threads to fit all cars. The item is



furnished on attractive display cards for windows or counters, 20 caps to the card, one to fit every car made.

Manufactured by Monmouth Products Co., 882 East Seventy-Second Street, Cleveland.

READERS' CLEARING HOUSE

Questions and Answers on Dealers' Problems

Adjustments on Lockheed Hydraulic Brake

Will you please supply me with complete instructions covering the operation and adjustment of the Lockheed hydraulic brake on the Hupmobile 8?—Robert B. Burns, 3819 West Eighth St., Little Rock, Ark.

THE main thing to keep in mind in servicing Lockheed brakes, or any brakes for that matter, is to see that all connections in the brake system, and especially those around the brake band are clean and free to move. We are showing a schematic diagram of a Lockheed hydraulic brake system of the external type such as is used on the Hupmobile 8. As will be seen, this consists of a master cylinder connected to the brake pedal, a main line for carrying the brake fluid and branch lines going to each wheel which has its own cylinder with two pistons operating on brake levers as shown.

When the brake pedal is depressed the fluid in the lines moves outward making uniform pressure at all brakes. In other words there is no equalizing to be done on a brake system of this kind and uniform braking effort will be applied to each wheel provided the linkage is all perfectly free to move and the brake lining in good condition and free from oil or grease. The lining should be carefully adjusted so that there is a clearance of .010 in. between it and the brake drum at all points. The first place to adjust is the clearance at the brake anchor and after securing an adjustment that gives a clearance of .010 in. at that point make the adjust-

ment at the brake lever nuts. If the bands are distorted and do not fit with a uniform clearance they should be reshaped before attempting to get an exact adjustment. When brake bands have been relined they should be reshaped before attempting to adjust them. New lining frequently requires some little usage before it attains full efficiency and before it can be permanently adjusted, though this is not always true of all makes of brake linings. If only one brake should be relined it is imperative that the same kind of lining be used on it that is used on the other three brakes in order to maintain uniform braking action. About the only thing that could happen to a braking system of this kind is for leakage to develop or for air to get in the lines. Obviously, if leakage has occurred it will be necessary to replace the fluid which has escaped. After the leak has been located and repaired the pump handle on the supply tank which is located on the dash should be screwed down and more fluid forced into the system.

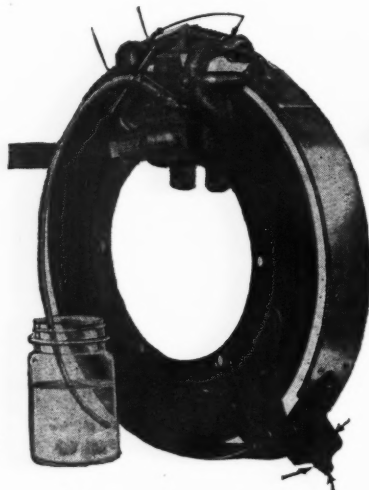
If air has got into the system a rubbery and inefficient action of the brake pedal will result. Air can be removed by bleeding the brakes. To do this a glass jar shown in the illustration should be placed on the floor below the car and a rubber tube should be connected to the bleeder connection as shown and some fluid drawn off. To do this the pump handle in the supply tank should be turned all the way down and the fluid accumulated in the glass jar. If bubbles continue to appear with the

fluid this should be poured back into the supply tank and the operation of bleeding continued until all bubbles have risen to the surface and the fluid is clear of air bubbles. After performing this operation on one brake it should be repeated on the other brakes, to be sure that the air is out of the line in all directions.

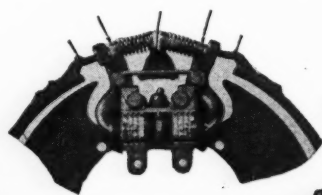
Recharge the Magneto for Easy Starting

I have a Ford car for repairs. The difficulty with it is in starting, as this car can only be started by pushing. There is no adjustment on the field coil of the magneto, so I have shimmed it up so that the magnet clears by a little more than .010 in. I have renewed the main bearings so that there is practically no end play. When pushed the car starts and pulls very well. Have renewed the wires and also the timer and roller. The engine does not miss. This car is a 1923 model. I would like to know how Ford magnetos can be remagnetized and whether this can be done without taking the engine out. There is no current supply here. Can this work be done by means of storage batteries?—S. Sunder Rao, Mercara, Coorg District, Mysore, India.

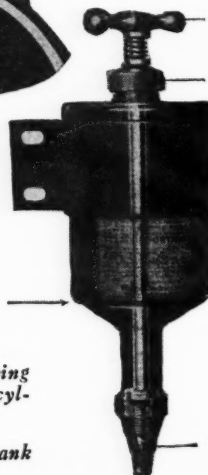
WE are showing an illustration of the connections for recharging the Ford magneto with storage batteries. Successful recharging of magnets in a Ford magneto depends primarily on having the engine properly set so that the magnets are properly located with respect to the winding. This requires the use of a compass which should be carefully checked away from all machinery to see that one end of it points to-



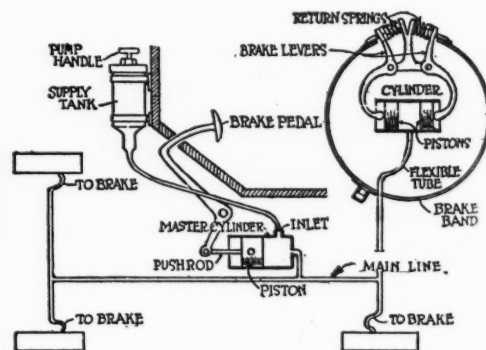
Above: External wheel cylinder view showing how cylinder is being bled



Above: Closeup showing interior of one wheel cylinder assembly



Right: Dash supply tank



Schematic diagram of Lockheed hydraulic brake system external type

[READERS' CLEARING HOUSE]

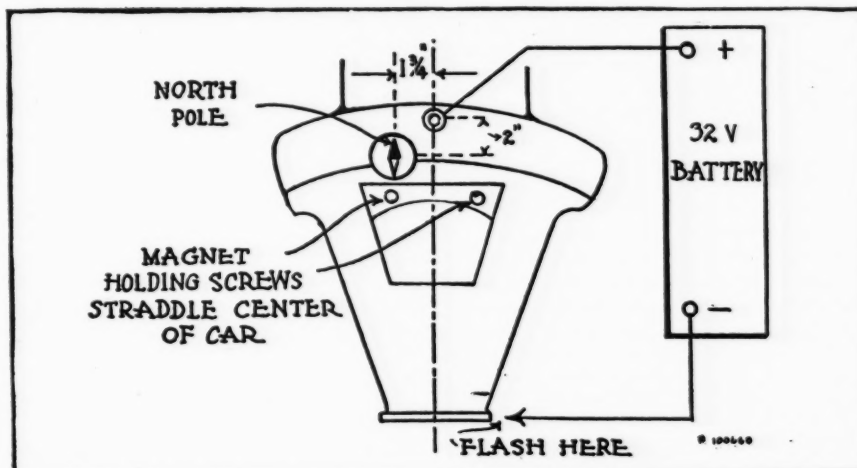
ward the north. This end we will call the North Pole. Now disconnect all wires from the magneto terminal and remove the slanting cover on top of the transmission cover. It is also well to take out the spark plugs so that the engine can be turned easily without interference from the compression. Now turn the engine until the brass studs which hold the magnets on, and which can be seen at the back of the flywheel, by looking through the slanting door opening, are so located that that one is at the right of the center of the car as much as another is at the left. In other words, two of these brass studs must be straddling the center of the car.

Now take the compass and hold it 2 in. back of the magneto terminal and $1\frac{3}{4}$ in. to the left and see if the north end of the needle points toward the radiator of the car. If it points the other way have someone turn the crank so that the flywheel turns the distance of one brass stud. The compass should now point with its north end toward the radiator. Now take either two 12-volt batteries well charged, or four 6-volt batteries and connect them in series, that is in a string with the plus end of one connected to the minus end of another. Now connect the positive end of this string of batteries with a heavy wire, the copper part of the wire being about $\frac{1}{8}$ in. in diameter if possible, to the magneto terminal. A similar heavy wire should be connected to the negative end of the string of batteries and should be flashed 15 or 20 times against the frame of the car. It is essential that this connection be quickly made and broken as the current is so heavy that the insulation of the coils may be damaged if the connection is left on for any length of time. To do a really good job, the starting crank should be turned $\frac{1}{4}$ turn and the compass again used to check the flywheel position and the flashing operation should then be repeated. If a 32-volt farm lighting battery is available, this will serve very satisfactory in place of the two 12-volt batteries or the four 6-volt batteries. The flashing operation should be repeated at every quarter turn of the flywheel for best results. The advantage of repeating the process every 90 deg. is due to the fact that the iron plate supporting the coils has a certain amount of spring to it, so that the magnets at the bottom of the flywheel become slightly more magnetized than those at the top and the process is repeated in order to give all the magnets a chance to become as strong as possible.

Higher Compression Needed For Higher Altitude

For some years I have enjoyed your department and now I have a question of my own to ask.

We have an Essex Super-Six Sedan, bought in March, 1927, model preceding present one



with longer stroke. Mileage is now 2500 miles and car has been handled very carefully with regard to speed and oil changes—under the permitted speed as recommended by builder and much more frequent oil changes.

The motor has an annoying lack of snap and pick-up, although in high gear above 25 miles per hour the acceleration seems to be fair. The action is very sluggish and the motor will not pick up even though gas be fed gradually, to eliminate tendency to choke up under suddenly opened throttle. However, there is no missing or popping under any conditions. We have cleaned the carburetor, according to manual instructions, to point where engine runs best when thoroughly warmed. Making mixture leaner or richer does not increase or decrease the sluggishness mentioned. We have checked ignition timing, breaker point clearance and valve clearance and found them O. K. Compression seems to be normal, as far as we can judge, considering that bearings still seem rather tight when turned over by hand crank. (Is this tightness normal after this mileage is covered?)

There are no dragging brakes and car rolls very easily. The carburetor is a Stewart, regular factory equipment, no "gas-savers" or other accessories being added. The best mileage we can get is 17 miles per gallon on a 350 mile trip at steady rate, about 35 to 40 m.p.h. over good roads on warm day—no severe conditions. Is this mileage as good as can be expected from this car?

We rather suspect that the sluggishness may be due to improper functioning of low speed and accelerating jets. We prefer your advice before we do further investigating.

The altitude at which car is operated is 4500 ft. and on trips it reaches 7100 ft., this but rarely.

We shall be very glad to have your opinions and suggestions on the cause and remedy of this condition. We have described things in detail to give you more to work on, not merely to occupy your time.—H. R. Nelson, Ruth, Nevada.

THE tightness of your engine after the distance you have driven your car seems a little unusual and it strikes us that you may have the piston rings fitted a little too tight which binds when the engine is hot. The engine that you have should turn very freely by hand when the spark plugs are out and we would suggest that you try it this way as it is sometimes a little difficult to judge the tightness of an engine when the spark plugs are in place. Also, oil your hand crank before using it as considerable friction can be de-

veloped right at the crank for which the engine is sometimes blamed. The car such as you have will probably not do much better than 17 miles per gallon at your altitude. We know of cars like yours in Philadelphia, which is practically at sea level, that get in the neighborhood of 19 to 21 miles to the gallon on straight runs and we, therefore, doubt if you can get this mileage at an altitude of 4500 ft. Also we believe that it is the altitude that has much to do with the lack of snap and pep in your engine. It would be well worth your while to have $\frac{1}{8}$ in. of material milled from the cylinder head in order to raise your compression. Before doing this, however, check the valve action and piston travel to be sure that nothing will strike the top of the combustion chamber if it were lowered $\frac{1}{8}$ in.

The latest Essex cars have considerably higher compression than the model that you have and that, probably, accounts for their improved performance. If you find in service that $\frac{1}{8}$ in. is too much, you can offset this by installing an extra cylinder head gasket. Of course in connection with the higher compression head it probably would be necessary to use the non-knocking fuels which are available.

Thanks, Mr. Sturm—Try This

We have tried the things that you suggested for speeding up our Hudson car, but performance is not yet what it should be. In view of the fact that you asked us to tell you how we made out we are writing this to let you know that we need more information on this subject.—A. M. Sturm, Saint Paris, Ohio.

THE very thing to do with this car is to see that it rolls easily. We would suggest that you remove all wheels, remove and clean all the bearings and pack them with vaseline or crude petrolatum.

If you want the maximum speed it will be worth your while to flush out the lubricant in the transmission and differential and use castor oil. So far

[READERS' CLEARING HOUSE]

as the engine is concerned, it is needless to mention, of course, that the valves must be seating perfectly and have plenty of tappet clearance. While on the subject of tappet clearance, it might be well to mention that many mechanics are under the impression that excessive tappet clearance is desirable for high-speed work, but we have not found this to be true. In our experience it has been found that a clearance of .004 on the intake valves and .006 on the exhaust valves is very satisfactory. Any increase in tappet clearance about these figures will result in a reduction of speed. This has been determined by actual trials on Hudson cars.

It is advisable to increase the strength of the valve springs, which can be done most easily by inserting an extra retaining washer. In your previous letter you told us that you had the camshaft set back one tooth. For high speed work it is advisable to set the camshaft back, but we have found that a full tooth is entirely too much. We believe that if you would set the valves so that the exhaust valves would close at about 15 deg. after top dead center, that this would be the best possible setting. The normal setting, as you probably know, is 8 deg. after top dead center. To make this change it would be necessary to elongate the holes in the camshaft sprockets. Also, if this car is equipped with the later type Stewart carburetor designed to give maximum mileage, it is advisable to make changes as follows:

Remove the hot air pipe from the stove to the carburetor.

Remove the intake manifold and install two fibroid gaskets. Parts No. 29,578, with one metal gasket part No. 39,577 between them. This will serve to insulate some of the heat from the intake manifold.

Remove the metering pin from the carburetor which will undoubtedly be found to be 1 1/4 in. and install size 1 1/2. This is part No. 26,544.

The aspirating nozzle should be replaced with a nozzle No. 41. If this No. 41 nozzle cannot readily be obtained, the same results can be secured by running a No. 41 drill through the present nozzle.

With reference to the ignition it should, of course, be needless to mention that the contact points should be clean, and should make a good square contact, seeing also that the contact arm spring has plenty of tension.

It is also necessary that the automatic spark advance functions perfectly, and this can be best checked by some authorized Bosch agency where there is suitable equipment for checking the advance curve. No attempt should be made to use the so-called high-test gasolines that are on the market, with the possible exceptions that non-detonating fuel is O.K., provided it is not of the high-test variety.

The actual setting of the spark can

best be done on the road, as it should be advanced as far as possible without knocking.

Chandler Assortment to the Front

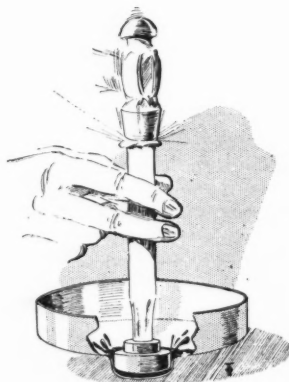
I have a Chandler Big Six Roadster, 1925 model, and I was told that the valve timing is one tooth ahead. Does the car operate at its best when such a condition exists, or does this retard speed or power? How can one tell whether the valve timing is one tooth ahead without taking off the front cover, and what distance should my breaker point open?—M. K. Molyneux, 2219 Grand Ave., Detroit, Mich.

YOU can tell whether your valve timing is ahead or not without taking off the front cover by checking it against the following factory setting:

SHOP KINKS

Ideas that have proved useful

FOR removing the bushing of a Ford starting motor from the front end cap I take enough yellow soap to fill the bushing and pack it in so that the space under the bushing is also filled. I then take a pin of some kind of wood, preferably hard wood, and whittle it with a knife until it fits the bushing fairly snug. I then lay the starter cap on a wood block and drive the hard wood pin into the bushing with a hammer. This gives an enormous hydraulic pressure operating to lift the bushing out of its place in the cap.—J. F. Spear, 414 E. 9th St., Greenville, N. C.



Readers of MOTOR AGE are invited to submit ideas that they have found useful in doing some particular service job in the shop in a better or quicker way. For each one published \$2.00 will be paid. Whenever possible the idea should be accompanied by a sketch or diagram from which a drawing can be made.

Intake opens .3 in. before top dead center.

Exhaust closes 2.48 in. after top dead center.

These distances should be measured on the rim of the flywheel. If the valves open or close before these settings, you may be sure that the timing is ahead one or more teeth, depending on the distance ahead that these valves open or close. You can tell exactly how many teeth ahead this timing is, and to correct it, it will, of course, be necessary to take off the front cover. Your breaker point should open .020 in.

What speed can this model attain with a standard axle of 4 1/2:1? How many miles per hour increase will a 4:1 give over the standard ratio? A 3 1/2:1, or a 3:1?

Will a 3 1/2:1 axle strain the engine? The weight of this car is 3090 lb.

It is impossible for us to tell just what performance you will get from your car with the different rear axle ratios—though a 3 1/2:1 rear axle will be perfectly safe in this car and will probably give you considerably more speed on a smooth level road than you can now get with your 4 1/2:1 ratio. You must recognize, of course, that changing from 4 1/2:1 to a 3 1/2:1 ratio reduces your acceleration, but does improve your maximum speed on good level road.

Will a compass operate accurately when set in an instrument panel in the same position as the rest of the instruments, and where can I purchase a compass, if one is made for this purpose?

A compass must remain absolutely horizontal in order to function properly. However, very satisfactory automobile compasses are made, but must be specially mounted. The names and addresses of concerns making such instruments will be sent by separate letter.

Quite a Blow-Out

I have a question I would like to ask. We have a customer who has a Fordson tractor that blows out the porcelain insulator of his spark plugs. We have sold him lots of spark plugs of three different standard makes which are supposed to be made for tractor service and even these will blow out. What could be causing this trouble?—Eisenhauer & Leavitt, North Main Garage, 225 N. Main St., Newkirk, Okla.

YOU will probably find that your customer is driving his Fordson with the spark too far advanced. The result is that the explosion pressure reaches its maximum while the piston is still coming up with the result that it blows out the spark plugs. Incidentally, this does not produce the best pulling results from the tractor and also is highly destructive to bearings and all parts in general.

Legal Queries on Automotive Topics

Answers by Wellington Gustin

Clarifying a Mixed Up Garage Case

I have a long mixed up case which I would like to have your opinion on.

A man who was buying a Stephens roadster on time brought in a Stutz which he is supposed also to have bought. I repaired the rear end of the Stutz and he told me the seller would pay bill; seller said he would pay half. Anyway, owner removed battery and license plates from Stephens using them on Stutz, leaving Stephens in my shop where it stood for nearly three months. During that time I have not seen or heard of the registered owner. His partner came in to remove some tires and I stopped him, telling him I was holding car for bill on Stutz. He also vanished.

Now comes a detective agency for finance company, saying "we want the car; your bill is no good but will try to get some storage for you." They leave and here come agents of the Auto Company, who sold the Stephens, after the car. I refused to let them have it and talked over the phone to credit manager who said the finance company would have to pay the storage as he would not.

In the meanwhile the Auto Company has filed embezzlement charges against the car or owner.

Then the detective sends me note by tow car driver saying to let them have the car and send the bill to the finance company, the idea being that the filing of charges stops me from holding car for anything.

Does it alter my rights in any way? The finance company refuses to pay the bill, which is \$12 for storage. Can I collect this in any way? I have the detective's note, which, however, does not guarantee payment.—C. E. Tobias, Salt Lake City, Utah.

THERE are some undefined factors in your mixed up case which might change results arrived at from any other. However, you have the advantage of possession and thereby can force all other claimants into court and make them show their hands and their rights to the car, while giving you the advantages of a defendant. And if your claims are small most people would rather pay them than risk suit, or put out the costs of bringing suit.

In the first place only an owner or his authorized agent can authorize a garage keeper to make repairs on a car which will create a lien against the car. Again a lien attaches only to the car repaired, as against third parties, though it might be good as between parties to an agreement otherwise. If your customer, in having repairs made on the Stutz, represented the seller, then the seller should pay the whole bill, and not half as he admits liability on, for he is really your customer.

Facts you state indicate an intention on the part of your customer to abandon the Stephens car. Still you have no right to relinquish the car to anyone except upon proper authority presented. You could not legally hold the car against the true owner or his duly

authorized agent; or against one having a right to possession, as through a court order. Certainly no detective or detective agency has any power to determine disputes or ownerships. Nor would you be justified in giving up possession on one's instruction to charge your claim to some third party without first verifying from such third party the authority of the first party.

Both the finance company and the dealer should present satisfactory evidence of their claims before attempting to negotiate with you regarding disposal of the car. And their claims must be superior to the customer's. But who is going to determine whether the papers and contracts they present are legal, valid claims having the legal significance which they attach to them? Each is an interested party and will put the utmost in his own construction and favor. That is why courts are necessary.

Now it is most likely that the finance company, or the sales agency, has retained title to car or has a mortgage on same. If either was properly executed and recorded prior to your claim it is most probable they hold a superior right to the car. Should they go into court, they would be required to establish this superior right.

I infer that by a detective agency being employed and by embezzlement charges being filed against the purchaser of the car that fraud is or will be charged against the sale. Fraud voids a sale, ordinarily. This would bring up a question of authority to you from your customer. Filing of charges does not alter your rights. If the party were convicted of theft or fraud, voiding his rights and title in the car, then your rights might be affected. But the answer to that is that, as between two innocent parties to a fraud, the one who made the fraud possible upon the other must be the one to suffer the loss. In other words, the sales agency who put the car into possession of your customer should be forced to recognize your claims against the car. However, this is an equitable principle not recognizable except in chancery.

Although your customer be not convicted of criminal charges the sales agency or finance company may have sufficient proof to void their transactions with him, thereby affecting you. But by sticking to your guns you can force these parties to go into court and prove their charges in order to establish their case. Although action by replevin is started they must establish these things to show their rights to possession, and to go into court costs money.

Your claim for storage is a just one and these parties should not expect you

to lose because of their own blunders. But more than that; you hold this car through your customer. Suppose he turns up later and demands the car from you? If the car were rightfully his and you have turned it over to others wrongfully, you are liable to him in damages. So the safest way for you is to retain the car until taken from you by court order. Otherwise you set yourself up as judge in the matter or you permit these interested claimants to judge the matter for you.

The detective's note or order is likely worth nothing. In fact, you say the finance company refuses to pay the storage bill; that shows they refuse to recognize his order.

Advice on a Burning Question

We had a customer bring in a truck and we put in a new crankshaft and he paid us partly in cash and partly by check. The cash did not cover the amount of new repairs put into it. The day after he took the truck out he burned out a bearing. He brought it back and we put in a new one free of charge and he again took out his truck and burned out the same bearing. We started to put in another free and he took his truck out of the garage and stopped payment on the check he gave us.

I would like legal advice on this. Is there any way we can make him pay the check? The parts we put in the truck outside of bearing are still good and he is working with the truck every day.—Edgar N. Clark, Hemingford, Neb.

YOUR customer can legally withhold payment on parts furnished or repairs made only for such as prove defective. If only the bearing be defective then on suit he can only set off the value of the bearing. Unless, of course, he can show that your workmanship in making repairs was responsible for other actual damages to the truck. No court will permit of speculative damages; i. e., damages which are incapable of being exactly ascertained in dollars and cents.

Now if the burning out of a bearing by a customer can be traced definitely and directly to poor and negligent workmanship of the repairman, then the repairman may be held liable for any damages. But if the burning out of bearing is due to other causes, obviously the repairman is not liable.

The party who claims faulty workmanship and faulty repairs has the burden of proving his charges by a preponderance of the evidence. It's an old trick of debtors to set up some charge or claim against a creditor as a "stall" when they are unable to pay or desire more time.

If you can show that your work was not the cause of the burning of bearing you need not fear results of a suit.



As You Can Guess, It's No Cinch, Art

CLEVELAND—Being one myself, sort of, I regard editors as I do star salesmen—all right, as long as they don't twinkle out. That's why I reserved my comments. Now, let me say, unreservedly, that I think MOTOR AGE is the liveliest of many trade papers of many trades that come to my desk. And any weekly publication that can hold the lively pace that yours has held for four months is destined to better it. Congratulations.—A. H. Dreher.

A Good Check! Hallelujah!

MONROE, N. C.—It gives me pleasure to mail you our check for another year's subscription for MOTOR AGE. We consider it the wisest investment we ever made, and wouldn't do without it for many times the price. With best wishes.—A. & W. Garage.

Postman, On Your Job!

DENVER, COL.—I failed to receive MOTOR AGE for Aug. 18. I do not like to miss a number of this valuable magazine, and will appreciate your sending me a copy.—H. H. Packwood.

Is Our Blush Becoming?

ASHLAND, PA.—To us the most interesting feature in MOTOR AGE is



John Cleary's stories.—Ashland Motor Co.

Page Mr. Bach!

MARTINSBURG, W. VA.—Just recently I have read a few copies of MOTOR AGE and have found them very interesting. I would like to get it regularly.—G. N. Hockenberry.

"Fine" Sometimes Means "Thin"

EAST PALESTINE, OHIO—MOTOR AGE is just fine.—J. H. C.

Vividly Titillated

MANTUA, OHIO—I am tickled pink with MOTOR AGE.—G. L. N.

LETTERS to the editor from those whose "attention has been called"; from those who point with pride and those who view with alarm, from those who are easy to please and those who are hard to please; from those who are happy when they find a good thing and those who are happier when they find something they consider not so good; from those who boost and those who knock; from those who see the doughnut and those who see the hole; in other words, Dear Subscriber, from you and you and you—as well as from the man who borrows your copy of MOTOR AGE or reads it over your shoulder.

"Enclosed Find" Are Sweet Words

HOLLIDAYS COVE, W. VA.—Enclosed find subscription for the good old MOTOR AGE. I don't know how I let this slip by. I know I am very busy and then when I let my subscription run out I thought it could not be renewed again for six months, and I am sure glad and thankful that I won't have to do without it for six months.—J. A. Snyder.

Good Gravy

ST. LOUIS, MO.—Thanks be—motor trade publishers are beginning to realize that automobile dealers are just folks and like gravy on their meat. Coincidental with you in the editorial chair, I have begun to read MOTOR AGE with some real degree of human interest. And I have personal evidence that my feeling about the book is echoed by a significant cross-section of the trade. Of course, you sense this better than any of us; but I don't imagine it will hurt you in the telling even if it may be superfluous.—Frank Mooney, D'Arcy Advertising Co.

We'll Save Your Life

SLEEPY EYE, MINN.—Somehow we failed to receive our Aug. 18 issue of MOTOR AGE and as we find it hard to get along without your paper, I am wondering if you will send us another copy.—Krause's Garage.

Sorry, Joe, Motor Age is Already Transformed

CLEVELAND—Before answering your first question under your "Gas, Oil and Hot Dogs—Drive In" section of Sept. 1, let me ask you one. Are you in the market for transformers? If so, state KV-A required, cycles, volt, taps, conditions of service, credit ratings, photographs and anything else that may be of interest. The purpose of keeping our transformer address a secret is to find out whether or not they read our advertising.—J. C. Bowman, Packard Electric Co.

Business is Good With Us, Too

WACO, TEX.—I am enclosing check for MOTOR AGE. Do most anything else to me but do not skip me on MOTOR AGE. Business is looking very nice for us in this part of the world. I enjoy every page of your great magazine and could not do without it.—C. P. Smith.

Pardon, "Hand Tools"

BUFFALO, N. Y.—Am noting with a great deal of interest the small tool articles now running in MOTOR AGE.—A. F. Vars, president, E. P. Remington Advertising Agency.

We're Positive It's Not

PORTLAND, ORE.—For your information, I do not think MOTOR AGE



is what it has been in the past. Yours for a better MOTOR AGE.—C. C. Spears.

From Front to Back

WACO, TEX.—MOTOR AGE is interesting from cover to cover.—Smith & Schiemenz Garage.

Victory for Us

CAMDEN, N. J.—Everything in MOTOR AGE is interesting to us.—Victory Garage.

He's Easy to Please, Sex You

COUDESPORT, PA.—I like the entire magazine.—Joseph Easton.

Prices, Weight and Equipment of Current Passenger Car Models

Important Changes in
Specifications and Price
Tables since last issue.

DIANA
Price Changes
KISSEL 6-70
New Specifications and
Body Models

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
AUBURN "6-6"				
2-4p. Roadster...	\$1095	2	2770	ahr
5p. Touring...	1145	4	2760	ahr
2-4p. Cabriolet...	1295	2	2850	
5p. Sp. Sedan...	1195	2	3040	ahr
5p. Sedan...	1295	4	3040	ahr
5p. Wand. Sedan...	1345	4	3040	ahr
"8-77"				
2-4p. Roadster...	1395	2	3005	ahmnr
5p. Touring...	1445	4	2960	ahmnr
2-4p. Cabriolet...	1595	2	3170	
5p. Sp. Sedan...	1495	4	3350	ahmnr
5p. Sedan...	1695	4	3390	ahmnr
5p. Wand. Sedan...	1745	4	3390	ahmnr
"8-88"				
2-4p. Sp. Rdster...	1995	2	3180	ahmnr
5p. Touring...	2045	4	3200	ahmnr
2-4p. Cabriolet...	2095	2	3300	
5p. Sp. Sedan...	2095	4	3380	ahmnr
5p. Sedan...	2195	4	3450	ahmnr
5p. Wanderer...	2245	4	3450	ahmnr
147" W.B.				
7p. Touring...	2295	4	3790	
7p. Sedan...	2595	4	4200	ahmnr
BUICK "115"				
4p. DeL. Rdstr...	\$1195	2	2900	ahmnr
5p. Touring DeL...	1225	4	3040	ahmnr
2-4p. Coupe...	1195	2	3110	ahmnr
5p. 2d. Sedan...	1195	2	3215	ahmnr
5p. 4d. Sedan...	1295	4	3300	ahmnr
4p. Ctry. Club...	1275	4	3190	ahmnr
5p. Town Bro'm...	1375	4	3305	ah
"123"				
4p. Coupe...	1465	2	3800	ahmnr
5p. 4d. Sedan...	1495	4	3870	ahmnr
5p. Town Bro'm...	1575	4	3940	ahmnr
"123"				
2-4p. Sp. Rdster...	1495	2	3655	ahmnr
4p. Sp. Touring...	1525	4	3735	ahmnr
5p. Coupe...	1850	2	3940	ahmnr

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
3p. Ctry. Club...	1765	2	3905	ahmnr
5p. Bro. Sedan...	1925	4	4050	ahmnr
7p. Sedan...	1995	4	4115	ahmnr
CADILLAC "341" "Fisher"				
2p. Roadster...	\$330	2	3450	
4p. Phaeton...	3450	4	3900	
4p. Sp. Phaeton...	3900	4	3900	
7p. Touring...	3450	4	3900	
2-4p. Coupe...	3295	2	3900	
2-4p. Conv. Coupe...	3490	2	3900	
5p. Coupe...	3495	4	3900	
5p. Sedan...	3590	4	3900	
5p. Town Sedan...	3335	4	3900	
7p. Sedan...	3645	4	3900	
5p. Imp. Sedan...	3740	4	3900	
7p. Impr. Sedan...	3895	4	3900	
5p. Imperial Cab...	3445	4	3900	
7p. Imperial Cab...	3895	4	3900	
"Fleetwood"				
5p. Sedan...	4035	4	4035	
5p. Sedan Cab...	4075	4	4035	
7p. Sedan...	4195	4	4035	
7p. Sedan Cab...	4195	4	4035	
5p. Imperial...	4445	4	4035	
5p. Imperial Cab...	4445	4	4035	
7p. Imperial Cab...	4445	4	4035	
... Town Cab Con...	5000	4	4035	
... Town Cab Con...	5500	4	4035	
... Lim Bro'm Con...	5500	4	4035	
CHANDLER "Big Six"				
2-4p. Roadster...	\$1695	2	3200	Ahmnr
7p. Touring...	1695	4	3360	Ahmnr
5p. Met. Sedan...	1495	4	3570	Ahmnr
4p. Coupe...	1675	2	3435	Ahmnr
3p. Ctry. Club...	1675	2	3435	Ahmnr
5p. Met. DeL. Sed...	1595	4	3570	Ahmnr
7p. Sedan DeL...	1795	4	3725	Ahmnr
... Royal Sed...	1795	4	3725	Ahmnr
"Spec. Six"				
5p. Touring...	945	4	2475	ah
5p. DeL. Touring...	1005	4	2475	ahw
2-4p. Rdstr...	1135	2	2470	ahw
5p. Sportster...	1145	4	2650	ahw
5p. Sedan...	995	4	2740	ah
3p. Coupe...	1035	2	2640	ah
2-4p. Coupe...	1135	2	2630	ah
5p. DeL. Sedan...	1135	4	2635	ah
3p. DeL. Coupe...	1125	2	2640	ah
2-4p. DeL. Coupe...	1235	2	2650	ah
"Roy. St. 8"				
7p. Touring...	1995	4	3645	Ahmnr
4p. Roadster...	1995	2	3375	Ahmnr
4p. Coupe...	1995	2	3610	Ahmnr
4p. Ctry. Club...	1995	2	3610	Ahmnr
5p. Sedan...	1995	4	3760	Ahmnr
7p. Sedan...	2095	4	3870	Ahmnr
CHEVROLET "AA"				
2p. Roadster...	\$525	2	1890	dr
5p. Touring...	525	4	1965	dr
2p. Util. Cpe...	625	2	2090	dhr
5p. Coach...	595	2	2190	dhr
5p. Sedan...	695	4	2275	dhr
2-4p. Cabriolet...	715	2	2135	dhr
5p. Land. Sedan...	745	4	2270	dhr
Imp. Land...	745	4	2260	dhr

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
CHRYSLER "52"				
5p. Touring...	\$750	4	2185	ar
2-4p. Roadster...	725	2	2210	ar
2p. Coupe...	725	2	2355	ar
5p. Sedan...	735	2	2350	ar
5p. Sedan...	795	4	2455	ar
5p. De L. Sedan...	875	4	2390	ahr
"62"				
5p. Touring...	1095	4	2645	aghnr
2-4p. Roadster...	1175	2	2635	aghnr
5p. Sedan...	1145	2	2770	aghnr
5p. Sedan...	1445	4	2840	aghnr
2-4p. Coupe...	1445	2	2750	aghnr
5p. Land. Sedan...	1295	2	2855	ghnr
"72"				
2-4p. Roadster...	1495	2	2005	aghmnrx
2-4p. Sp. Rdstr...	1525	2	2005	aghmnrx
4p. Coupe...	1595	2	2160	aghmnrx
2-4p. Coupe...	1545	2	2130	aghmnrx
5p. Roy. Sedan...	1545	2	2130	aghmnrx
5p. C.C. Sedan...	1495	2	2140	aghmnrx
2-4p. Con't Coupe...	1745	2	2100	aghmnrx
5p. Crown Sedan...	1745	4	2130	aghmnrx
"80"				
5p. Phaeton...	2495	4	3925	aghlmprwx
2-4p. Roadster...	2595	2	3905	Beghlmprwx
7p. Phaeton...	2645	4	4115	egum-opx
2-4p. Sp. Roadster...	2695	2	3800	aghlmprwx
5p. Sp. Phaeton...	2895	4	4240	aghlmprwx
5p. Std. Sedan...	2675	4	4155	aghlmprwx
5p. Std. Landau...	2795	4	4215	aghlmprwx
7p. Std. Sedan...	2835	4	4370	aghlmprwx
5p. Sedan...	3195	4	4260	aghlmprwx
5p. Land. Sedan...	3295	4	4220	aghlmprwx
7p. Sedan...	3295	4	4370	aghlmprwx
5p. Coupe...	3015	2	4220	aghlmprwx
2-4p. Cabriolet...	3495	2	4065	aghlmprwx
5p. Sedan Lim...	3595	4	4600	aghlmprwx
7p. Sedan Lim...	3595	4	4450	aghlmprwx
5p. Town Car...	5495	4	4265	aghlmprwx
CUNNINGHAM "V-7"				
7p. Touring...	\$6650	4	4600	Ceghklmnp
4p. Sp. Touring...	6150	4	4500	Ceghklmnp
4p. Coupe...	7600	2	4700	Ceghklmnp
6p. Limousine...	8100	4	5000	Ceghklmnp
DAVIS "92-27"				
5p. Leg. Tour...	\$1395	4	2915	Dhmnr
5p. Sedan...	1595	4	3000	Dhmnr
5p. Imp. Sedan...	1795	4	3055	Dghmnort
"94-27"				
5p. Roadster...	1245	2	2350	dhr
5p. Touring...	1285	4	2500	dhr
5p. Sedan...	1285	4	2570	dhr
3p. Coupe...	1285	2	2375	dhr
5p. Imp. Sedan...	1335	4	2575	Dghmnort
4p. Polo Rdstr...	1795	2	3000	aghmnr
5p. Touring...	1795	4	3050	aghmnr
4p. Coupe...	1865	2	3150	aghmnr
5p. Emp. Sedan...	1885	4	3200	aghmnort
DIANA "St. 8"				
5p. Phaeton...	\$1695	4	3100	agmn
5p. Roy. Roadster...	1795	2	2995	agmnw
5p. P.B. Rdstr...	1895	2	2995	Bgmnrw
5p. Cab. Rdstr...	1995	2	3160	aghmn
5p. Cab Rdstr...	2295	2	3160	aghmn
5p. 41. Sedan...	2045	4	3275	aghmnort
5p. 2d. Sedan...	1795	2	3170	aghmnort
135" W.B.				
7p. Touring...	1795	4	3336	agmn

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
DODGE BROS. "128"				
108" W.B.				
5p. Sedan...	875	4	2600	
5p. DeL. Sedan...	975	4	2609	
2p. Coupe...	855	2	2428	
4p. Cab. Rdstr...	955	2		
"Senior 6"				
4p. Cab. Rdstr...	1595	2	3353	Cehmnrxt
5p. Sedan...	1595	4	3412	Cehmnrxt
4p. Coupe...	1570	2	3315	Cehmnrxt
du PONT "E"				
4p. Roadster...	\$2800	2	3700	afghkma
5p. Touring...	2800	4	3750	afghkma
4p. Coupe...	3200	2	3850	afghkma
5p. Sedan...	3400	4	4100	afghkma
5p. Con. Sedan...	3750	4	4100	Bfghkma
FLCAR "6-70"				
5-7p. Touring...	\$1275	2	2580	ahjmnr
4p. Land. Rdstr...	1475	2	2670	ahjmnr
4p. Brougham...	1295	2	2670	ahjmnr
5p. Sedan...	1395	4	2750	ahjmnr
"8-82"				
5-7p. Touring...	1645	2	3320	aghmnr
2-4p. Roadster...	1870	2	3320	aghmnr
5p. Brougham...	1595	2	3410	aghmnor
5p. Sedan...	1790	4	3490	aghjmnor
"8-90"				
7p. Touring...	2465	4	3675	aghkma
4p. Land. Rdstr...	2295	2	3620	aghmnor
5p. Brougham...	2195	2	3710	aghmnor
5p. Sedan...	2265	4	3895	aghilmnort
7p. Sedan...	2765	4	4245	aghkma
FRSKINE "6"				
5p. Tourer...	\$915	4	2300	aghnr
2-4p. Spt. Rdstr...	965	2	2305	3
2p. Bus. Coupe...	895	2	2265	aghnr
2-4p. Spt. Coupe...	965	2	2330	aghnr
5p. Cus. Sedan...	965	4	2425	aghnr
ESSEX "Super Six"				
2p. Speedabout...	\$700	2	2115	amnr
4p. Speedster...	835	4	2230	amnr
2p. Coupe, cloth...	735	2	2370	ahmnr
2p. Coupe, leather...	750	2	2330	ahmnr
5p. Coach...	735	2	2450	ahmnr
5p. Sedan...	835	4	2490	ahmnr
FALCON-KNIGHT				
4p. Roadster...	\$1045	2	2450	ghr
... Touring...				
4p. G.G. Rdstr...	1250	2	2500	Beghkmnrwx
2p. Coane...	995	2	2565	ghr
5p. Brougham...	995	2	2665	ghr
5p. Sedan...	1095	4	2700	ghr
5p. Landau...	1145	4	2735	ghrtu
FLINT "60"				
5p. Touring...	\$1250	4	2750	ahmnr
4p. Spt. Rdstr...	1350	2	2885	Ahmnrw
4p. Cpe. Rdstr...	1395	2	2890	ahmnr
5p. Sedan...	1395	4	3030	ahmnr
5p. Brougham...	1395	2	3010	ahjmnor
"80"				
120" W.B.				
5p. Touring...	1450	4	3245	ahmnr
4p. Spt. Tour...	1595	4	3395	ahmnrwx
4p. Coupe...	1795	2	3500	ahmnr
5p. Sedan...	1850	4	3625	

Prices, Weights and Equipment of Current Passenger Car Models

Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passenger and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment	Passengers and Model	F.O.B. Price	Doors	Shipping Weight	Standard Equipment
OVERLAND					PACKARD					PIERCE ARROW					STAR				
5p. Touring.....	\$625	4	1985	ag	4p. Runabout.....	\$2275	2	3545	Deghlmpnx	2p. Runabout.....	\$2495	2	3285	afghlrx	2p. Con. Rdstr....	\$550	2	1850	a
2-4p. Roadster....	695	2	1930	agh	5p. Phaeton.....	2275	4	3590	Deghlmpnx	7p. Phaeton.....	2895	4	3440	afghlrx	5p. Touring.....	550	4	1920	a
2p. Coupe.....	625	2	2025	ag	5p. Sedan.....	2285	4	3925	Deghlmpnx	4p. Phaeton.....	3095	4	3300	afghlrx	2p. Coupe.....	650	2	1965	ah
5p. Coach.....	625	2	2075	ag						5p. Brougham.....	2495	2	3470	afghlrx	5p. Coach.....	675	2	2120	ah
5p. Sedan.....	725	4	2185	agh						5p. Sport Land....	3025	4	3700	afghlrx	5p. Sedan.....	705	4	2200	ah
5p. Landau.....	755	4	2230	agh						5p. Std. Sedan....	2895	4	3525	afghlrx	"6"				
"6" Whippet										7p. Std. Sedan....	3350	4	3620	afghlrx	5p. Touring.....	725	4	2070	a
2-4p. Roadster....	825	2	2225	agh						2-4p. Coupe.....	3200	2	3450	afghlrx	2-4p. Roadster....	885	2	2140	aeghkmrw
5p. Touring.....	765	4	2270	agh						5p. Club Sedan....	3300	4	3565	afghlrx	2-4p. Cabriolet....	915	2	2260	aeghmr
2p. Coupe.....	795	2	2305	agh						5p. Club Land....	3400	4	3570	afghlrx	2p. Coupe.....	795	2	2145	ahmr
5p. Coach.....	795	2	2405	agh						7p. Ene. Dr. Lim..	3450	4	3680	afghlrx	5p. Coach.....	845	2	2265	ahmr
5p. Sedan.....	875	4	2440	agh						4p. Coupe.....	3250	2	3420	afghlrx	5p. Sedan.....	925	4	2340	ahmr
5p. Landau.....	925	4	2490	aght						5p. DeL. Sedan....	3895	4	3500	afghlrx	5p. Land. Sedan....	975	4	2335	ahmr
"6-90"										7p. DeL. Sedan....	3995	4	3600	afghlrx	2-4p. Sp. Coupe....	975	2	2295	aeghkmr
5p. Phaeton.....	1395	4	2850	aeghlmrw						7p. Lim. Encl.....	4045	4	3660	afghlrx	STEARN-KNIGHT				
2-4p. Roadster....	1495	2	3025	aeghlmrw						"F-6-85"					4p. Roadster.....	\$3250	2	4252	aeghklmnp
2-4p. Coupe.....	1565	2	2975	aeghlmrw						2p. Runabout.....	5875	2	4560	afghlrx	4p. Touring.....	3250	4	4322	aeghklmnp
5p. 2d. Sedan....	1395	2	3060	aeghlmrw						4p. Touring.....	5875	4	4510	afghlrx	4p. Cab. Rdstr....	3550	2	4500	aeghklmno
5p. Std. Sedan....	1595	4	3125	aghlmr.						7p. Touring.....	5875	4	4585	afghlrx	5p. Cus. Sedan....	3350	4	4562	aeghklmno
5p. Spt. Sedan....	1795	4	3100							7p. Sedan.....	5875	4	4815	afghlrx	4p. Coupe.....	3450	2	4527	aeghklmno
5p. DeL. Sedan....	1795	4	3125	Deghlmrnw						7p. Lim. Encl.....	5875	4	4870	afghlrx	5p. Std. Sedan....	3450	4	4572	aeghklmno
"6-90"										3p. Coupe.....	6375	2	4760	afghlrx	5p. Sedan Lim....	3700	4	4647	aeghklmno
5p. Phaeton.....	1695	4	2930	aeghlmrw						4p. Cpe. Sedan....	6375	2	4795	afghlrx	5p. Cus. Sed. Lim.	3700	4	4637	aeghklmno
2-4p. Roadster....	1695	2	2960	aeghlmrw						4p. Sedan.....	6375	4	4880	afghlrx	7p. Sedan.....	3750	4	4702	aeghklmno
4p. Coupe.....	1725	2	3050	aeghlmr						4p. Sedan.....	6475	4	4805	afghlrx	7p. Sedan Lim....	3950	4	4777	aeghklmno
4p. Sedan.....	1895	2	3150	aeghlmr						2p. Coupe.....	6600	2	4745	afghlrx	"G-85"				
5p. Sedan.....	1895	4	3200	aeghlmr						4p. Sedan Land....	6600	4	4800	afghlrx	4p. Roadster.....	3950	2	4448	aeghklmnp
5p. Landau.....	1995	4	3250	aeghlmr						7p. Fr. Limou....	7500	4	4740	afghlrx	4p. Touring.....	3950	4	4633	aeghklmnp
"8-89"										7p. Fr. Landau....	8000	4	4865	afghlrx	4p. Cabriolet....	4550	2	4717	aeghklmnp
126" W.B.										PONTIAC "6"					4p. Coupe.....	4550	2	4882	aeghklmno
5p. Coupe.....	2795	2	3810	Deghlmrntx						2-4p. Roadster....	\$745	2	2160	ah	5p. Sedan.....	4650	4	4934	aeghklmno
5p. Sedan.....	2995	4	3875	Deghlmrntx						2p. Coupe.....	745	2	2275	ah	7p. Sedan.....	4750	4	5027	aeghklmno
133 1/2" W.B.										5p. 2d. Sedan....	745	2	2375	ah	5p. Sedan Lim....	4850	4	5009	aeghklmno
2-4p. Roadster....	2995	2	3650	Deghlmrnx						4p. Sport Cab....	795	2	2345	a	7p. Limousine....	4950	4	5102	aeghklmno
7p. Sedan.....	3095	4	3675	Deghlmrntx						5p. Land. Sedan....	845	4	2460	ah	REO "A"				
5p. Sedan.....	3495	4	3950	Deghlmrntx						5p. DeL. Landau..	925	4	2510	ah	2p. Roadster.....	\$1685	2	3300	aeghmr
7p. Sedan.....	3595	4	4050	Deghlmrntx						"Wolverine"					5p. Brougham....	1685	2	3425	aeghmr
5p. Ber. Lim.....	3795	4	4100	Deghlmrntx						5p. Brougham....	1195	2	2960	ahmr	2p. Sp. Coupe....	1625	2	3320	aeghmr
ROLLS ROYCE										"Si. Ghost"					4p. Victoria.....	1845	2	3350	aeghmr
"St. Ghost"										Open Models.....					5p. Sedan.....	1845	4	3550	aeghmr
Open Models.....	\$			Bfghjkmprtx						Closed Models.....					5p. DeL. Sedan....	1995	4	3550	aeghmr
Closed Models.....	\$			Bfghjkmprtx						"New Phantom"					Open Models.....				
"New Phantom"										Open Models.....	\$			Beghjkmprrtx	Closed Models.....				
Open Models.....	\$			Beghjkmprrtx						Closed Models.....	\$			Beghjkmprrtx	STUTZ "AA"				
Closed Models.....	\$			Beghjkmprrtx						131" W.B.					2-4p. Sp'dster....	\$3350	2	4058	aeghlmnpwx
STAR "4"										2-4p. Roadster....	\$3350	2	4058	aeghlmnpwx	4p. Speedster....	3360	4	4175	aeghlmnpwx
2p. Con. Rdstr....	\$550	2	1850	a	5p. Phaeton.....	2275	4	3590	Deghlmpnx	2-4p. Coupe.....	3360	2	4182	aeghlmnpwx	4p. Viet. Coupe....	3375	2	4176	aeghlmnpwx
5p. Touring.....	550	4	1920	a	5p. Sedan.....	2285	4	3925	Deghlmpnx	5p. Brougham.....	2495	2	3470	afghlrx	5p. Brougham.....	3395	4	4334	aeghlmnpwx
2p. Coupe.....	650	2	1965	ah						5p. Sedan.....	2285	4	3925	Deghlmpnx	5p. Sedan.....	3395	4	4340	aeghlmnpwx
5p. Coach.....	675	2	2120	ah										5p. Land. Sedan....	3545	4	4280	aeghlmnpwx	
5p. Sedan.....	705	4	2200	ah										145" W.B.					
"6"										5p. Touring.....	725	4	2070	a	7p. Sedan.....	3885	4	4656	aeghlmnpwx
5p. Touring.....	725	4	2070	a						2-4p. Roadster....	885	2	2140	aeghkmrw	7p. Sedan Lim....	3985	4	4731	aeghlmnpwx
2-4p. Roadster....	885	2	2140	aeghkmrw						2-4p. Cabriolet....	915	2	2260	aeghmr	"AA Deluxe"				
2-4p. Cabriolet....	915	2	2260	aeghmr						2p. Coupe.....	795	2	2145	ahmr	2p. Speedster....	3450	2	4058	aeghlmnpwx
2p. Coupe.....	795	2	2145	ahmr						5p. Coach.....	845	2	2265	ahmr	4p. Speedster....	3460	4	4175	aeghlmnpwx
5p. Coach.....	845	2	2265	ahmr						5p. Sedan.....	925	4	2340	ahmr	"AA Custom"				
5p. Sedan.....	925	4	2340	ahmr						5p. Land. Sedan....	975	4	2335	ahmr	131" W.B.				
5p. Land. Sedan....	975	4	2335	ahmr						2-4p. Sp. Coupe....	975	2	2295	aeghkmr	2p. Black Hawk....	4885	2	4058	aeghlmnpwx
2-4p. Sp. Coupe....	975	2	2295	aeghkmr						STEARN-KNIGHT					4p. Black Hawk....	4935	2	4058	aeghlmnpwx
STEARN-KNIGHT										"F-6-85"					2-4p. Cab. Coupe	3895	2	4058	aeghlmnpwx
"F-6-85"										4p. Roadster.....	\$3250	2	4252	aeghklmnp	5p. Pr. Wales Sed.	6345	4	4058	aeghlmnpwx
4p. Roadster.....	\$3250	2	4252	aeghklmnp						4p. Touring.....	3250	4	4322	aeghklmnp	5p. Wey. Deau. S.	4665	2	4058	aeghlmnpwx
4p. Touring.....	3250	4	4322	aeghklmnp						4p. Cab. Rdstr....	3550	2	4500	aeghklmno	5p. Wey. Sedan....	4665	4	4058	aeghlmnpwx
4p. Cab. Rdstr....	3550	2	4500	aeghklmno						5p. Cus. Sedan....	3350	4	4562	aeghklmno	145" W.B.				
5p. Cus. Sedan....	3350	4	4562	aeghklmno						4p. Coupe.....	3450	2	4527	aeghklmno	7p. Speedster....	3885	4	4058	aeghlmnpwx
4p. Coupe.....	3450	2	4527	aeghklmno						5p. Std. Sedan....	3450	4	4572	aeghklmno	7p. Pr. Wales Sed.	6345	4	4058	aeghlmnpwx
5p. Std. Sedan....	3450	4	4572	aeghklmno						5p. Sedan Lim....	3700	4	4647	aeghklmno	5p. Wey. Sedan....	5185	4	4058	aeghlmnpwx
5p. Sedan Lim....	3700	4	4647	aeghklmno						5p. Cus. Sed. Lim.	3700	4	4637	aeghklmno	7p. Cab. T'n Car	6895	4	4058	aeghlmnpwx
5p. Cus. Sed. Lim.	3700	4	4637	aeghklmno						7p. Sedan.....	3750	4	4702	aeghklmno	VELIE				
7p. Sedan.....	3750	4	4702	aeghklmno						7p. Sedan Lim....	3950	4	4777	aeghklmno	2-4p. Roadster....	\$1165	2	2730	aeghmr
7p. Sedan Lim....	3950	4	4777	aeghklmno						"G-85"					3p. Coupe.....	1165	2	2730	aeghmr
"G-85"										4p. Roadster.....	3950	2	4448	aeghklmnp	5p. Sedan.....	1165	4	2810	aeghmr
4p. Roadster.....	3950	2	4448	aeghklmnp						4p. Touring.....	3950	4	4633	aeghklmnp	5p. Met. Sedan....	1325	4	2810	aeghmr
4p. Touring.....	3950	4	4633	aeghklmnp						4p. Cabriolet....	4550	2	4717	aeghklmnp	"Spec. 60"				
4p. Cab. Rdstr....	3550	2	4500	aeghklmno						4p. Coupe.....	4550	2	4882	aeghklmno	5p. Club Ph'tn....	1450	4	3025	aeghlmnpwx
5p. Cus. Sedan....	3350	4	4562	aeghklmno						5p. Sedan.....	4650	4	4934	aeghklmno	4p. Coupe.....	1585	2	3260	aeghlmnpwx
4p. Coupe.....	3450	2	4527	aeghklmno						7p. Sedan.....	4750	4	5027	aeghklmno	5p. Spec. Sedan....	1585	4	3335	aeghlmnpwx
5p. Std. Sedan....	3450	4	4572	aeghklmno						7p. Sedan Lim....	3950	4	4777	aeghklmno	5p. Spec. Sedan....	1585	4	3335	aeghlmnpwx
5p. Sedan Lim....	3700	4	4647	aeghklmno						"G-85"					5p. Royal Sedan..	1635	4	335	

Mechanical Specifications of Current Passenger Car Models

This list comprises current cars distributed on a national basis only. Data for previous models back to 1920 will be found in the Chilton Catalog and Directory

MAKE AND MODEL		Wheel Base (Inches)	Tire Size	Decimals-Balloons	Make and Model	Number of Cyls.	Rated H.P.	Piston Displacement	Valve Arrangement	Camshaft Drive	Piston Material	No. Main Bear.	Crankshaft Vibration	Oil Cleaner?	Cooling System	Thermosstat?	Klubers?	Carburetor	Air Cleaner?	Ignition System	Generator and Starter Make	Clutch—Type and Make	Gear Set—Make	Universal—Type and Make	REAR AXLE	BRAKES				Steering Gear—Make	Rear Springs—Type and Length	Chassis Lubrication—Type and Make	ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS	
																								Type and Make	Gear Ratio	Foot—Type and Location	Hand—Type and Location	4-Wheel Type						
Auburn.....	6-66	120	28x5 25	29x5 25	Con.	28L	19.8	185	Ch.	Cl.	4	X	X	X	Pu.	N	N	Sec.	N	N	D-R	D-R	P. Long.	War.	m-U-P	1/2 Col.	4.9	B-F	E-T	M	Ros.	S-56 1/2	Pr-Al	A-Bos—American Bosch
Auburn.....	8-77	125	31x6 25	31x6 25	Lyc.	4HM	33.8	299	Ch.	Cl.	5	X	X	X	Pu.	N	N	Sec.	N	N	D-R	D-R	P. Long.	War.	m-U-P	1/2 Col.	4.7	B-F	E-T	M	Ros.	S-56 1/2	Pr-Al	A-K—Atwater Kent
Auburn.....	8-88	130-147	31x6 25	31x6 25	Lyc.	4HM	33.8	299	Ch.	Cl.	5	X	X	X	Pu.	N	N	Sec.	N	N	D-R	D-R	P. Long.	War.	m-U-P	1/2 Col.	4.5	B-F	E-T	M	Ros.	S-56 1/2	Pr-Al	A-L—Auto-Life
Buick.....	110	114 1/2	31x6 00	31x6 00	Ow.	.....	29.4	207	He.	Cl.	4	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.9	B-F	E-T	M	Jac.	V-48	Pr-Zen	Al-Alenite
Buick.....	120-128	33x6 00	33x6 00	33x6 00	Ow.	.....	29.4	207	He.	Cl.	4	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.7	B-F	E-T	M	Jac.	V-48	Pr-Zen	Al-Alenite
Cadillac.....	341	140	32x6 75	32x6 75	Ow.	.....	35.0	341	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.9	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Big 6	124	33x6 00	33x6 00	Ow.	.....	33.8	299	Ch.	Cl.	4	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Spec 6	108 1/2	30x5 00	30x5 00	Ow.	.....	29.4	207	Ch.	Cl.	4	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Spec 6	124	32x6 00	32x6 00	Ow.	.....	33.8	314	Ch.	Cl.	5	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Royal St. 8	108	32x6 00	32x6 00	Ow.	.....	33.8	314	Ch.	Cl.	5	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N	D-R	D-R	D. Own.	Ow.	m-Ow.	1/2 Col.	4.5	B-F	E-T	M	Jac.	V-48	Pr-Zen	B-B-Borg & Beck
Chandler.....	Chandler	AA	103	29x4 00	Ow.	.....	21.8	171	Ch.	Cl.	3	X	X	X	Pu.	N	N	Mar.	N	N														

EVERY auto-
mobile manufacturer and
every automobile engineer
, , , who has subjected
LOCKHEED

Internal

Hydraulic Four Wheel

Brakes to the
most severe comparative
tests, acclaims them the best
brakes ever developed for a
motor car , , , ,

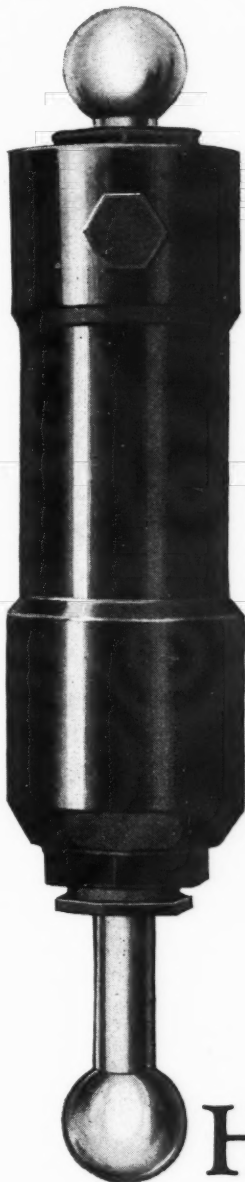
HYDRAULIC BRAKE COMPANY
DETROIT, MICHIGAN, U.S.A.



Mechanical Specifications of Current Passenger Car Models—Continued

ENGINE										ELECTRICAL SYSTEM				REAR AXLE		BRAKES		Steering Gear—Make		Rear Springs—Type and Length		Chassis Lubrication—Type and Make		ABBREVIATIONS—NAMES OF MFRS. OF STOCK PARTS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Wheel Base (Inches)	Tire Size	Decimals-Balloons	Make and Model	Bore and Stroke	Rated H.P.	Valve Arrangement	Camshaft Drive	Piston Material	No. Main Bearings	Crankshaft Vibration Damper	Oiling System	Cooling System	Thermostat	Radiator	Shutters?	Carburetor	Air Cleaner?	Ignition System	Generator and Starter Make	Clutch—Type and Make	Gear Set—Make	Universal—Type and Make	Type and Make	Gear Ratio	Foot—Type and Location	Hand—Type and Location	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel Type	4 Wheel 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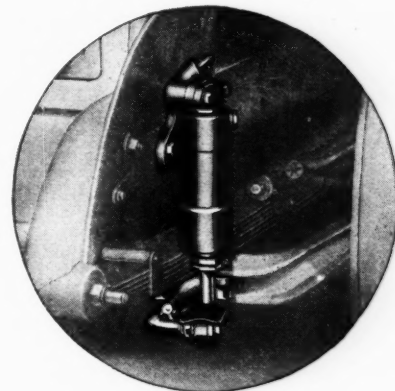
Get your Share



Cash in on the tremendous, popular interest in Hydraulic Shock Control. You can do it with Thompson Hydraulicators because the price is so reasonable that anyone can afford a set.

Thompson Hydraulicators are the world's most scientific Hydraulic Shock Control. They work smoothly and instantaneously. The famous "80/20 Control Factor" applies only 20% resistance to downswing and 80% against upward rebound. Result, *comfort* that makes more sales for you. Sold on unlimited guarantee. Write immediately and ask for full details.

- [1] Popular Price
- [2] 80/20 Control Factor
- [3] No Holes to Drill
- [4] No Straps, Levers or Arms
- [5] A Hydraulic not affected by Climatic Conditions



THOMPSON HYDRAULICATORS

The Popular Priced Hydraulic Shock Control

*Made for 118 Models
of Cars and Trucks*

Trade Mark and Patents Reg. U. S. Patent Office

made by

THE THOMPSON SPRING CORP.
WILMINGTON DELAWARE

BUICK—Standard
BUICK—Master
CHEVROLET 1925-28
CHRYSLER—Model "50"
and "52"
CHRYSLER—Model "53", "50",
"62"
DODGE—4 Cylinder 1925-27
DODGE—4 Cylinder 1928
ESSEX 1925-28
ERSKINE 1928
FORD—Coupe and Roadster
1926-27
FORD—Sedan and Touring 1924
FORD—Coupe and Roadster
1924-25
FORD—Front Spring Controller
FALCON-KNIGHT 1928
HUDSON 1925-26
HUDSON 1927-28
NASH—Light Six 1925-28
NASH—Special Six 1925-28
NASH—Advanced Six 1925-28
OAKLAND 1925-26
OAKLAND 1927
OAKLAND 1928 (All American)

OLDSMOBILE 1925-27
(with 2-wheel brakes only)
OLDSMOBILE 1928
(with 4-wheel brakes)
PONTIAC
STUDEBAKER—Std. 1925-26
(with 2-wheel brakes only)
STUDEBAKER—Std. 1927
STAR—4 and 6 Cylinder 1925-28
(with long spring clips through
both flanges of I beam)
STAR—4 and 6 Cylinder 1925-28
(with short spring clips through
upper flange of I beam only)
WHIPPET—4 and 6 Cylinder
WILLYS-KNIGHT—Model 66-A
WILLYS-KNIGHT—Model 70
WOLVERINE 1928
TRUCK UNITS:
CHEVROLET—½ Ton
CHEVROLET—1 Ton
GRAHAM—¾ Ton
FORD—1 Ton (front only)
GRAHAM—1 Ton
PONTIAC—½ Ton
WOLVERINE—½ Ton

Automotive Equipment Association

Show and Convention

CHICAGO, NOV. 7-12

Will be the biggest Shows and Conventions

Manufacturers, wholesalers, buyers and salesmen by the thousands will attend. They will be there for business—serious business.

New merchandise will be exhibited.

The Wholesalers'

In November, as an institutional Wholesalers' Shows, MOTOR

MARKETING AN

It will be dated November 10, but its printing schedule of a part of the edition in Chicago during the Thousands of wholesalers, their buyers and sales—real spirit of the shows by a study of the MARKETING

The issue will present, in part—

A comprehensive cataloging of new accessories, shop equipment, tools, replacement parts and garage supplies. New products and improvements in present products to which the wholesaler may look for profits in 1928.

Development of marketing information to most effectively distribute those products.

Merchandise items will be grouped, illustrated, described—giving a maximum amount of data in fewest words, but with plenty of illustrations—trade name of product, manufacturer's name and address, list price, principal selling arguments, etc.

A cataloging of merchandising ideas—every idea will be practical and proved.

In this issue, announcement will be made of \$2,075.00 popularity contest

Retailers of the country are casting thousands of a great contest, and announcement of exceeding interest to

Manufacturers are invited to use representative for 1928. We urge the preparation of dominant wholesale audience of

On account of printing schedule October 25. Please send

MOTOR WORLD

A Chilton Class

Chestnut and 56th Streets

National Standard Parts Association

Show and Convention

CLEVELAND, NOV. 14-19

Ever Staged by the A. E. A. and N. S. P. A.

New merchandising policies will be announced.

New contacts will be established.

Every hour of every day will be vitally important to the effectiveness of the industry and trade.

Shop Window

and economic phase of these great
WORLD WHOLESALE will publish its

ANNUAL FOR 1928

ule will be sufficiently advanced to insure delivery early part of the A. E. A. Show and Convention. men, unable to be present in Chicago, will get the ANNUAL of *Motor World Wholesale*.

A summary of the selling points of the 1928 automobile, with their relation to the accessory and equipment business.

Complete mechanical specifications of all current automobiles.

Service specifications as a guide to replacement parts wholesalers and their salesmen.

A complete survey of the accessory and shop equipment markets.

Scientific analysis of wholesale outlets—another new feature which will contribute in a major way to the completeness and value of the issue.

These are high spots of the many meritorious editorial features which will insure the MARKETING ANNUAL being prized and studied by every wholesaling executive and salesman in the automotive industry:

the winners in the *Motor World Wholesale* for jobbers' salesmen.

ballots for their favorite wholesale salesmen. It is the 27 winners will be a matter of every man in the trade.

advertising space in the MARKETING ANNUAL merchandising copy for consumption by the great the automotive industry.

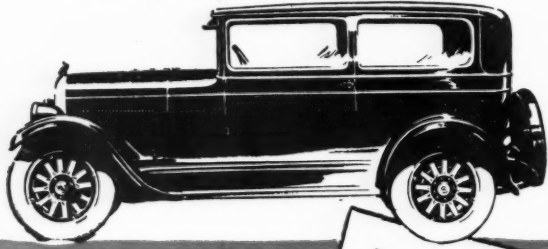
advancement, last forms will close copy early. Thank you!

WHOLESALE

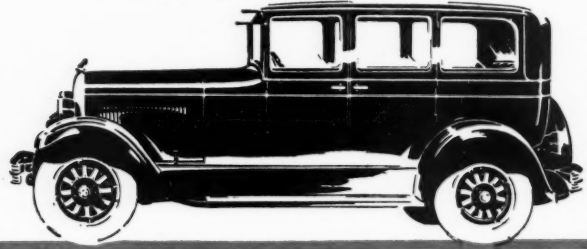
Journal Publication

Philadelphia

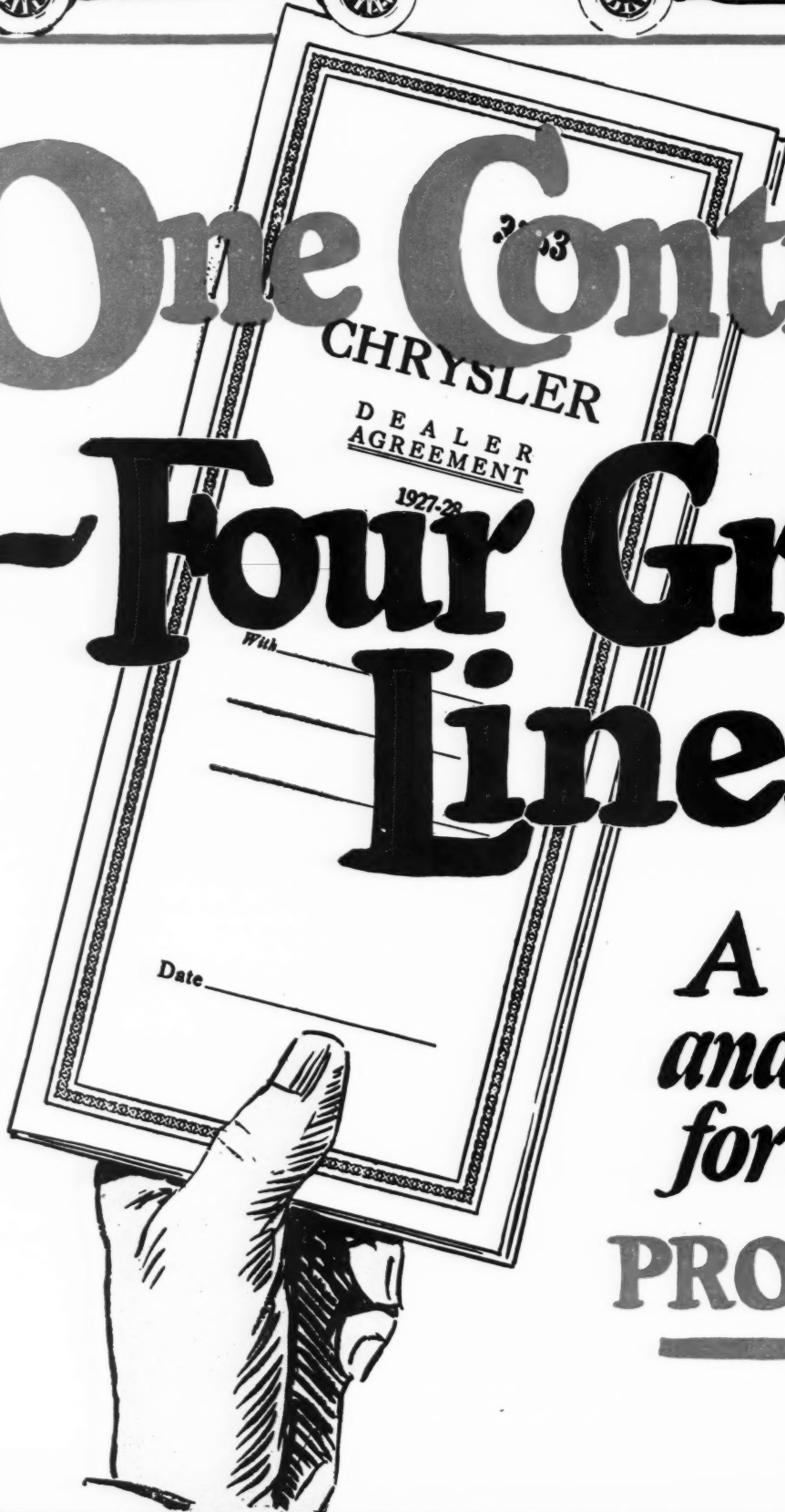
NEW CHRYSLER "52"



GREAT NEW "62"

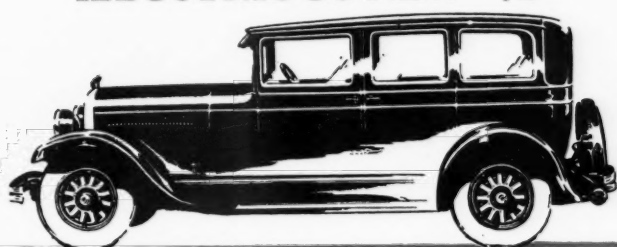


One Contract ~ Four Great Lines

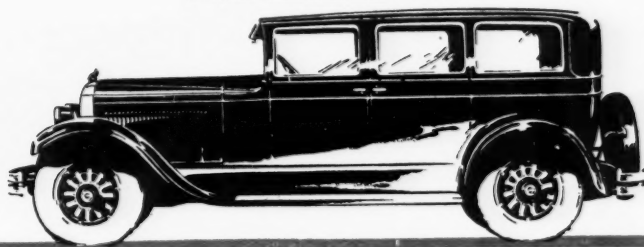


*A type
and price
for every*
PROSPECT

ILLUSTRIOUS NEW "72"



IMPERIAL "80"



TODAY, with the "52," "62," "72" and Imperial "80" Chrysler is supplying the proved best in the four greatest motor car markets.

Demand for the new Chrysler models is beyond all past records. To take care of the sweeping public preference Chrysler needs 2,000 additional dealers, particularly in smaller centers of population.

Why not capitalize on this tremendous enthusiasm?

Chrysler offers the only franchise for a complete line of cars of Standardized Quality to meet the requirements of all classes of quality car buyers from \$725 to \$3595—each car the outstanding value in its particular price field.

It offers this group of cars for dealers to sell under a single name and a single roof, eliminating the costly overhead and creating fine facilities and organizations to give the public the kind of service it should get.

How many franchises would you have to hold to obtain comparable coverage with other cars? How much costlier would it

be for you to do business with these various manufacturers? How much more floor space would you need to display all these lines satisfactorily to all concerned? How much more in service facilities, parts stocks, etc., etc.?

And even then you wouldn't have the popular line of cars that a Chrysler franchise offers you.

Ask any Chrysler dealer of the sales certainties—not mere possibilities—which the new 1927-28 Chrysler Franchise places before you. Learn why it is the most attractive agreement ever written. Particularly, the feature which makes it possible for a dealer in very small communities to sign up only for the "52," yet to have the other models available at call, without any definite commitment except for the "52."

Probably this is the opportunity you have long awaited to ally yourself with the most up-and-coming organization in the automobile industry. Maybe we need a dealer in your community right now. The surest way to find out is to inquire.

Investigate! Send in this coupon today.

CHRYSLER SALES CORPORATION, DETROIT, MICHIGAN
CHRYSLER CORPORATION OF CANADA, LIMITED, WINDSOR, ONTARIO

**WIRE
WRITE
or PHONE
NOW**

Your inquiry will be held in strictest confidence, whether or not a permanent connection with our company results

COUPON

CHRYSLER SALES CORP.,
Detroit, Mich.

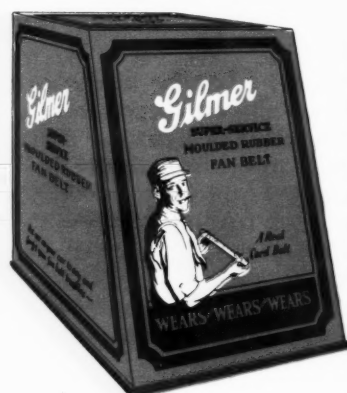
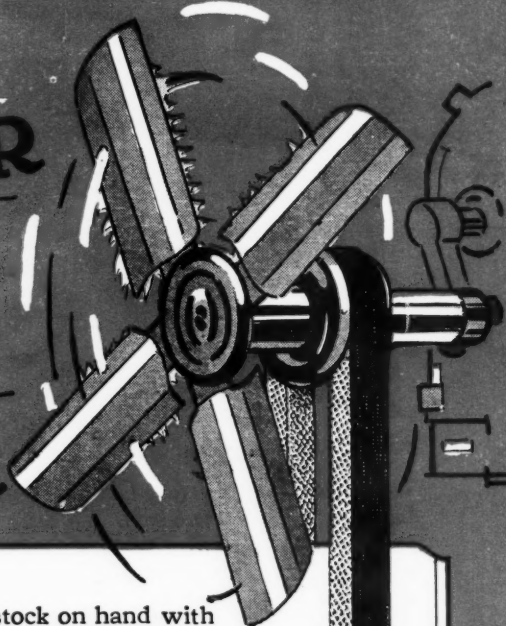
Please let me have, without any obligation on my part, complete details of your new 1927-1928 sales franchise.

Name _____

Street _____

City _____ State _____

—PERPETUAL—
—TURNOVER—
—PERPETUAL—
—TURNOVER—
—PERPETUAL—
—TURNOVER—



Each Gilmer Fan Belt
contained in the Gilmer
Display Cabinet is
made of MOULDED
RUBBER and CORD.

NO dead stock on hand with
a Gilmer Fan Belt Cabinet
on your counter. A perpetual turnover
—Quick sales—Instant profits.

This efficient fan belt salesman keeps
a constant whirlwind of sales blowing
profits into your cash drawer, enabling
you to give *instant* fan belt service to
98% of all makes of automobiles.

The strength, endurance and more miles
of satisfaction built into every Gilmer
Fan Belt of moulded rubber and cord
satisfies every customer. It means
more sales, larger profits and perpetual
turnover for you. Put a Gilmer Fan
Belt Cabinet on **YOUR** counter.

Ask Your Distributor

L. H. GILMER COMPANY

Tacony, Philadelphia, Pa.

Gilmer

Makers of the World's
Best Known Fan Belts

MILLIONS TO BE SPENT ON OIL FILTERS


The Importance of Filtering the Oil in Your Engine!

THE AC Oil Filter removes the dirt, sludge, metal particles and other foreign matter from the oil, thereby eliminating excessive engine wear and frequent oil changing, thus minimizing repair bills and oil expense.

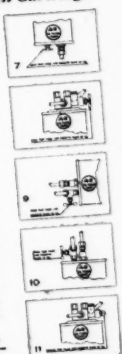
Why It Is Important To Test Your Oil Filter

Why It Is Important To Test Your Oil Filter

When the oil filter becomes filled with dirt it has taken from the oil, it ceases to function. Only by continuous filtration can the oil be kept clean. When the filtering unit becomes filled with this dirt, sludge, etc., taken from the oil, a new cartridge should be installed.



HOW TO TEST and the Correct Replacement Cartridge

[illegible]

There's an AC Oil Filter for Cars Not Factory Equipped—Ask Us

**These cars are AC
Oil Filter-equipped**

- Buick
Cadillac
Chandler
Chevrolet
Dodge
La Salle
Nash
Oakland
Oldsmobile
Paige
Peerless

**Here's the unit you
replace - and how it is
installed - -**



Place new cartridge in position, reattach fittings and reconnect pipes, then tighten retaining straps securely.

There are now over a million cars in use and over 10,000 a day leaving the factories—all AC Oil Filter equipped. Just think what this renewal business means to dealers who are making it a practice to test the oil filter on their customers' cars.

In addition to this, there is the business of complete oil filter installations for cars not equipped with an oil filter.

In the sale of AC Oil Filters and AC oil filter renewal cartridges, the big job is to get over to car owners the importance of filtering the engine oil—and the necessity of testing their oil filter at regular intervals and renewing the cartridge when needed.

There is a big business to be had by dealers who will put up one of these posters which convincingly brings out the importance of filtering the engine oil.

Dealers should put this poster up where their customers can see it, using it to explain to their trade the importance of clean oil, how the filter can be tested and the necessity of renewing the cartridge.

Actual size of poster is 25" x 40"
—printed in two colors.

**Poster furnished gratis on request
—simply ask for form A-197.**

AC Spark Plug Company, FLINT, Michigan

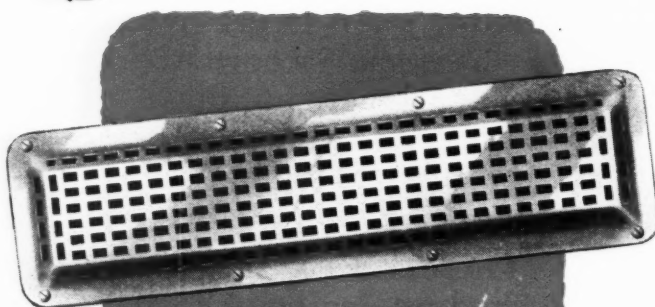
AC-SPHINX
Birmingham
ENGLAND

Makers of AC Spark Plugs—AC Speedometers
AC Air Cleaners—AC Oil Filters
AC Gasoline Strainers

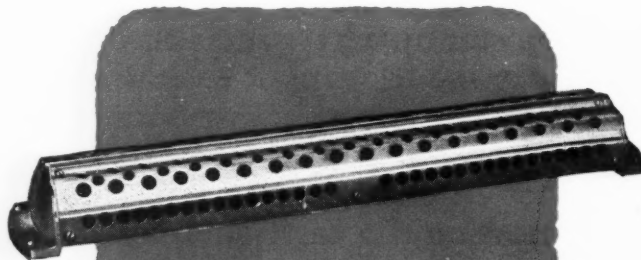
ACTITAN
Clichy (Seine)
FRANCE

Over 200 of the world's most successful manufacturers use one or more, or all of these AC Products
AC SPARK PLUGS AC SPEEDOMETERS AC AIR CLEANERS AC OIL FILTERS

2 NEW STEWART-WARNER HEATERS!



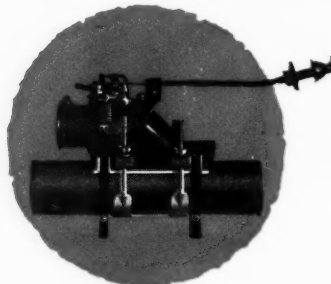
STEWART-WARNER Flush, or Floor Type, Heater, Model 307. Dimensions, 22½ in. long; 1½ in. deep; 5½ in. wide.



STEWART-WARNER Rail Type Heater, Model 306. Dimensions, 21 in. long; 2¼ in. deep; 3¾ in. wide.

These New Sales Features Mean Bigger Profits

1. **Quick Heat**—due to all steel heating element, a big advantage over cast iron elements.
2. **Silent**—vibratory noises eliminated by exclusive design of new unit.
3. **Dash Control**—on and off switch installed on instrument board—a great convenience.
4. **More Heat**—greater radiation due to freer air circulation.
5. **Odorless**—all joints are absolutely gas-tight.
6. **Machined Parts**—the same precision manufacture that goes into the building of a car's motor. Very heavy, durable construction.
7. **Two Models**—both floor and rail type, to fill every demand.
8. **Dealers will appreciate the ease with which these heaters can be installed—a big saving in time and labor. This means bigger net profits. Now is the time to stock these wonderful new heaters for winter sales. Send order or request for full information to your nearest distributor.**



DOUBLE valve is accurately machined. When closed, no gas can enter heater. When open, all exhaust is forced through heating element.

STEWART-WARNER SPEEDOMETER CORPORATION

CHICAGO, U. S. A.

Is Something for Nothing Always "Worth Just That"?

IT occasionally happens that the manufacturer of a product that is good, elects to introduce it by the distribution of free samples — or by the method of a free trial with returning privileges included.

This does not mean that the manufacturer is giving his product away, nor should the free feature belittle it in the minds of the trade.

The cost of free samples and free trials is legitimately charged to marketing expense — and should reflect the manufacturer's confidence in his product to satisfy, and make good.

MOTOR AGE

Chestnut and 56th Streets
Philadelphia, Pa.

EXECUTIVES

Several men are wanted for district representative positions with prominent automobile manufacturer. Only those capable of dealing with and securing high type dealers are desired. Broad automobile experience essential.

For Full Particulars

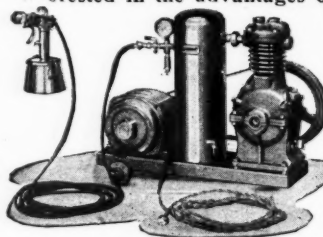
Address Box 6307

MOTOR AGE

Correspondence Confidential

With Handigrip

The response since Handigrip Junior was first announced a few months ago proves that the smaller dealers, as well as the larger ones, were already interested in the advantages of spray painting.



Handigrip Junior Complete Outfit

Many are buying Handigrip Junior now—grasping the opportunity to boost the value of used cars by painting them economically in their own shops.

With Handigrip Junior, as with larger Handigrip units, you can do a complete job in paint or lacquer; stripe, touch up or

patch; do an hour's work in a few minutes; practically eliminate sanding; reduce drying time, and increase the value and salability of used cars at the least cost for labor.

Handigrip Junior is a complete unit with air compressor, motor (or gasoline engine), air tank and connections, ready to attach to any electric socket and operate.

Priced at only \$175—the savings and increased values on a few jobs will pay for it. Write us—kindly address Dept. M.

PLUMMER-HUFF COMPANY
NAPOLEON, OHIO

*There are Profit Making Ideas
in Every Issue of*

MOTOR AGE

Many subscribers of MOTOR AGE, who realize the value of its contents each week, route every issue regularly through their places of business to all departments.

As a means of business-building this is a profitable habit to encourage, both for the benefit of the organization and its individual members. It is always best to read MOTOR AGE every week.

MOTOR AGE

CHESTNUT and 56th STS.

PHILADELPHIA, PA.

trap oil in the ring grooves instead of draining it away or scraping the cylinder walls dry. The staggered slots give pressure lubrication to the cylinder wall, minimize friction and increase power. No oil pumping, piston slap or compression loss.

Send for the Simplex Method of reconditioning motors without cylinder machinery, and make more money.

The Simplex Piston Ring Co. of America, Inc.

1971 East 66th St., Cleveland, Ohio

KISSEL

CUSTOM  BUILT

**Completely
Cushioned-
In-Rubber**

Kissel Motor Car Co., Hartford, Wis.

FOLLETT'S NEW MODEL TIME STAMP

accounts for every labor minute



Learn the interesting details from our descriptive data.

Prints the year, month, day, hour, minute, A.M. or P.M. at the exact moment the plunger is pressed—like this, for example:

NOV 19 1920 4 31 PM

Tells when a job is started—and when it is finished. There can be no dispute over the time charge.

Absolutely automatic — except for winding. Every machine guaranteed.

Follett Time Recording Co., 217 High Street, Newark, N.J.
"Established Since 1904"

Weidenhoff Shop
Equipment
for Battery and
Electrical Service
4358 Roosevelt Road Chicago, Illinois

NEXT WEEK

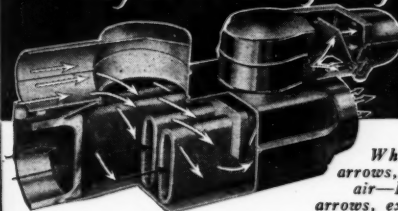
—is the time to read next week's issue of MOTOR AGE, as you are reading this week's issue this week

MOTOR AGE

Chestnut and 56th Sts.

Phila., Pa.

See this Heater before buying



White
arrows, fresh
air—Black
arrows, exhaust

Here's the heater that does a real heating job. Sells at a good profit. Small, compact, only 11 1/2" overall. Easy to install. No welded joints. One model fits all cars. See it. Try it. Don't buy heaters till you know this one—Write us today.

STANDARD TUBE & MFG. COMPANY
Detroit Michigan

**STANDARD
SAFETY
HEATERS**
Chase the Cold Away

Rubyfluid

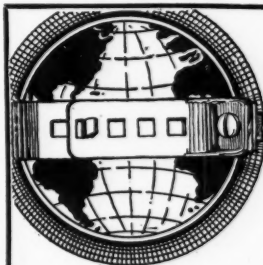
Makes a Tight Joint



The results of your work with Rubyfluid are right. You know that before you start.

That's why this non-corrosive, non-explosive, non-injurious soldering and tinning flux is preferred by mechanics everywhere. Do a job with Rubyfluid. You'll like it.

The Ruby Chemical Co.
68-70 McDowell St., Columbus, Ohio



FITZALL HOSE CLAMPS

are used all over the
world

Do You Sell Them?

IDEAL CLAMP MFG. CO. INC.
200 BRADFORD ST. BROOKLYN, N.Y.

BIGGER PROFITS!!!!!!!!!!**DeLuxe Step-Cut****PISTON RINGS**

(PLAIN)



NEW AND DIFFERENT—The most perfect plain ring obtainable. Recondition worn motors where cylinder walls are in good shape at enormous saving. They are absolutely true in roundness, flatness and finish with unusual tension producing REAL POWER. Sell lower in price and make your customers root for you.

Write today for complete information.

CORK-SEALED PISTON RING CORP.

2332 S. Michigan Ave., Chicago Factory: Denver, Colo.

Canadian Distributors: Cork-Sealed Piston Ring Corp.
Toronto, Canada

A Bulwark
of
Protection

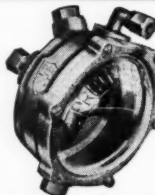


Better
to
Own

THE WARREN TOOL & FORGE COMPANY
412 GRISWOLD ST. WARREN, OHIO, U. S. A.

A Beacon
for the
Highway

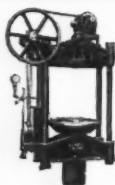
Better
to
Sell

**PROTEX-A-MOTOR**

GASOLINE PURIFIER

JUNIOR MODEL

Fits Ford, Dodge, Chevrolet, Chrysler, Erskine, Essex, Flint, Falcon-Knight, Maxwell, Oakland, Oldsmobile, Overland, Pontiac, Star, Whippet. Standard Model, \$5.00. PROTEX-A-MOTOR MFG. CO., Pittston, Pa.

\$350**THE GREATEST TRUCK TIRE APPLYING PRESS EVER BUILT**

is our No. 2727—325-Ton Model

Our Full Page Message in Chilton's Catalog and Directory (The Yellow Book) tells the Service Tale of our Tire Applying Press. Over 1000 in use.

The Charles F. Elmes Engineering Works
230 N. Morgan Street Chicago, Ill., U. S. A.

THE G- H LINE

OF REPLACEMENT PARTS

Brake Springs, Clutch Plates, G-H Tension Rings, King Bolt Lock Pins, King Bolt Thrust Washers, Piston Pin Retaining Springs, Valve Lifter Assemblies, Valve Springs, Valve Stem Keys, Valves.

G-H MANUFACTURING COMPANY, Inc.

6-8 East Mount Royal Ave.,
Baltimore, Md.

**FREDERICKS Rewinds**

New low prices: Rewinding or exchanging any two unit type of automobile generator or starter armature, \$2.50. Any type of Ford armature \$1.50. Special prices on Ford armatures in quantities.

H. M. FREDERICKS CO., Look Haven, Pa.



THOMSON MFG. CO.
Dept. 21 Peoria, Ill.

If jobber does not stock
write direct

**Genuine
APEX Innerings**

Guaranteed to stop oil pumping
and piston slap and renew motors
without re-boring.

BELLEVUE

Trunks, Trunk Carriers, Pumps, Bumpers, Jacks

See our combination trunk, trunk carrier, spare tire carrier and bumperette. COMPLETE line for all cars. Write for prices and nearest jobber.

THE BELLEVUE MFG. CO.

Bellevue, Ohio

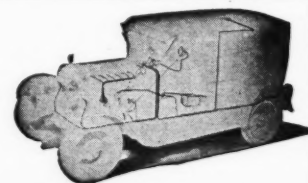
**Portable Electric DRILLS**

GRINDERS—POLISHERS

Ask for Catalog 105

The United States Electric Tool Co. Cincinnati, Ohio, U. S. A.
Oldest Builders of Electric Drills and Grinders in the World

Packard Cable
The Packard Electric Co.
Warren, Ohio

**STANDITALL AUTO RADIATOR**

Damageproof against repeated boilings and freezings. Built to last the full life of the car. Complete radiators for Fords, Chevrolets, Dodges and Maxwells. Cores for all cars and TRUCKS. If not at your jobber's, write direct.

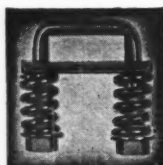
J. C. Black Mfg. Co., Inc., Oil City, Pa.

HALL HONE

—the Fastest Cutting Hone Made!

\$39.75

at your Jobber's



Pat. Pending

Orrville Spring Governors

Make Smooth-Running Profits

Among the foremost popular sellers for easier riding. Simple in operation and easy to install. Check the rebound and control the springs against "galloping". Ask for illustrated literature and discounts worth while.

ORRVILLE SPRING GOVERNOR CO., INC.

500 Brant Bldg.

Canton, Ohio

BOHNALITE**Pistons**

Bohn Aluminum and Brass Corp., Detroit

The advantages of
light alloy plus
those of cast iron.

Write for booklet.

STATE *New* **AUTO TRUNKS**
AUTO PARTS CORP. Wide assortment of automobile
 2011-13-15 S. STATE ST. trunks for various model cars.
 CHICAGO, ILL. Absolutely new stock, each
 Wire or write today for New and Used TIRES—
 PARTS—ACCESSORIES—“If its for an Auto-
 mobile We Have It.” **\$9.95**

VESTA BATTERIES

VESTA BATTERY CORPORATION 2100 Indiana Ave., Chicago, U. S. A.
 Central Distributors in 65 Leading Centers

Free
 write for
 your copy

The Book
“AIR PROFITS”
 Shows how to get
 more work out of
 an air compressor.
 How to use com-
 pressed air for
 many pay jobs.

BRUNNER MFG. CO.
 UTICA NEW YORK

BRUNNER
 AIR COMPRESSORS

KELLOGG COMPRESSORS



**Pump More Air per
 Horsepower with
 Less Oil**

Kellogg Mfg. Co., Rochester, N. Y.



FREE

SWAP a postage stamp for
 thousands of dollars worth of
 real facts on Car Washing. Send
 for your free copy of the hand
 book.

MANLEY MFG. CO.
 York, Pa., U. S. A.

SCHEBLER

The World's Finest **CARBURETORS**

The Wheeler-Schebler Carburetor Co. Indianapolis, U. S. A.

**Motor Age Advertising
 Forms Close Every
 Monday Preceding
 Publication Date**

LYCOMING Motors

Fine Fours, Sixes and Eights-in-Line
LYCOMING MANUFACTURING COMPANY, Williamsport, Pa.
Years Ahead in Automobile Motor Efficiency



Valve Face Grinding Machine

—with the NEW Sioux Roller Chucking System. Amazing accuracy and
 speed. Investigate before you buy.

Your Jobber Sells It

ALBERTSON & CO.
 SIOUX CITY, IA.

VITALIC

Fan Belts, Radiator Hose, Air Hose, Universal Joint
 Discs

“Tougher than Elephant Hide”
 Sold through the Jobber Only.

Continental Rubber Works,

Erie, Pa.

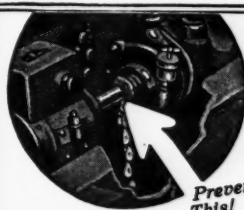
Something New!

An Automotive Manufacturer with 25 years' experience and excellent
 reputation has produced an entirely new type and design of double-
 acting hydraulic shock absorber. It represents the most advanced ideas
 in spring control, is simple to install and requires no service.

For complete information, address
COVERT GEAR & MFG. CORP.
 Grand Street Lockport, N. Y.

**They don't buy if they go by —
 Air Scales stop them and bring
 them back**

The Air Scale Company
 Toledo, Ohio, U. S. A.



It's a Permanent Repair!

Have a can of **CONNEAUT PLASTIC METALLIC PACKING** in your garage and
 be ready for the fellow who says he can't
 keep his water-pump from leaking.
 All sizes in one can. Stocked with your
 jobber.

1 lb. can\$1.75 per lb.
 5 lb. can1.60 per lb.

Manufactured by
THE CONNEAUT PACKING COMPANY
 Conneaut Ohio

TIMKEN Tapered ROLLER BEARINGS

CLASSIFIED ADVERTISING RATES

Ten cents a word is the rate for all undis-
 played advertisements set solid, regular want
 ad style; minimum charge \$1 an insertion.
 All capitals, 12c a word; all capitals, leaded,
 15c a word. Payable in advance.

CLASSIFIED

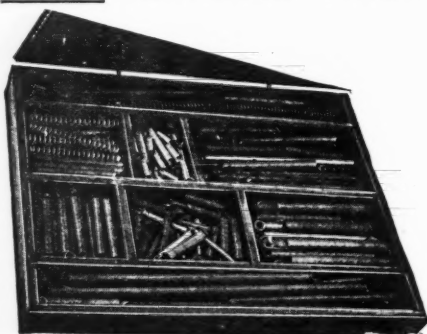
FOR SALE—Electric Enamel Oven 8' x 20'—
 Gas Enamel Oven 8' x 8'—Nichols type Wood
 and Paint Dryers. Anderson Motor Company,
 Rock Hill, S. C.

C. L. PARKER

Ex-Examiner U. S. Patent Office
Attorney-at-Law and Solicitor of Patents
McGill Building, Washington, D. C.
Patent, Trade Mark and Copyright Law

\$59⁰⁰ Profit

in having SPRINGS for every need
WHEN YOU NEED THEM



Assortment No. 2

Why waste time looking for a spring when you can find the one you want in Peck's Spring Assortments—and profit by it! Assortment No. 2, shown above, one of three selections, contains 250 finished steel and brass extension and compression springs. Sizes from 1" to 10" long, up to 1/4" diameter. \$3.50 list.

If you get only 25 cents apiece for the springs in this assortment you profit \$59.

Other assortments at \$1.50 and \$5.00.

If your jobber doesn't carry them, write us, mentioning his name.

THE PECK SPRING COMPANY
Plainville, Conn.

PECK'S
SPRING ASSORTMENTS

Bear Axle Gauge No. 40

- measures axle caster in degrees
- finds bent and twisted axles
- locates cause of SHIMMY
- shows how to correct hard steering



Most steering troubles are the fault of the axle! Axles must be aligned before wheels can be properly checked; to get satisfactory results you need the Bear Axle Gauge. This is the only gauge on the market that shows whether the axle is tilted forward or backward, discovers bent or twisted axles, bent spindles, and locates the cause of SHIMMY without removing the axle. Simple and easy to operate—takes only ten minutes—and will discover hundreds of dollars worth of repair work for your shop every month. Shows definitely the cause of hard steering or hard turning, and how to correct it. Write for illustrated, descriptive circular and full information.

Bear Special Wheel Aligner No. 10

The most accurate of all wheel aligners—measures both PITCH and Toe-In of front or rear wheels IN SIXTEENTHS OF AN INCH! No difficulty with balloon tires, four-wheel brakes, wire or disc wheels. Always accurate, sold with Templet, \$35. Free circular and information on request.

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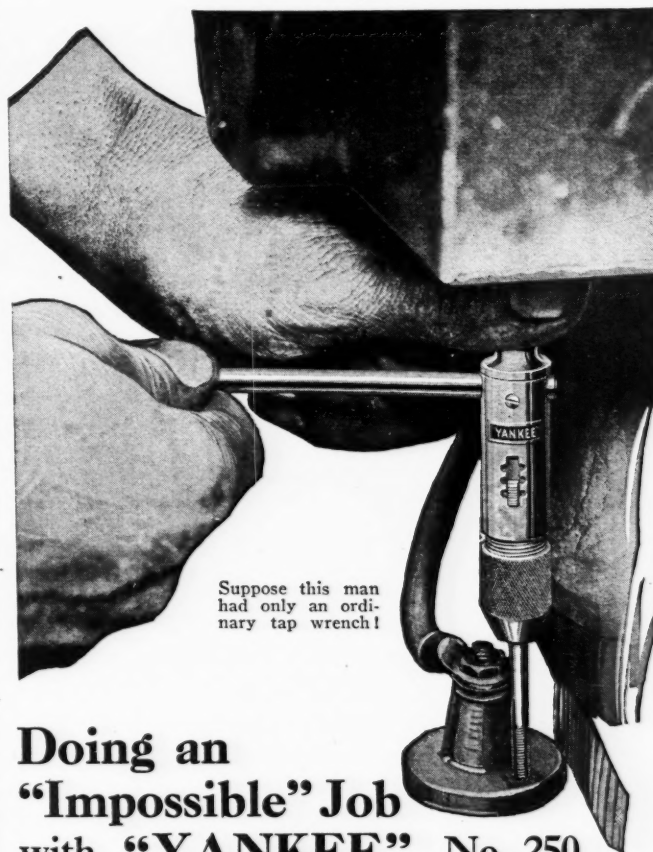
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Suppose this man
had only an ordi-
nary tap wrench!

Doing an "Impossible" Job with "YANKEE" No. 250

In close quarters where a complete turn cannot be made, there is no need to tear down construction when you have a "Yankee" Ratchet Tap Wrench.

Simply pull the sliding cross-bar out to end position where the hand can move freely, set the ratchet shifter, and tap the hole quickly and easily.

Awkward jobs are found everywhere. Save time and trouble by using this handy "Yankee" Tool.

Three adjustments: Right-hand ratchet, left-hand ratchet, and rigid. Knurled finger-turn at top quickly starts or backs out taps.

No. 250—Length 3¼ in. Chuck diam., ¼ in. Holds up to 3/16 in. taps.

No. 251—Length 5 in. Chuck diam., 7/8 in. Holds up to 5/16 in. taps.

No. 1251—Length 13 in. For jobs needing long reach. Otherwise same as No. 251.

Some other "Yankee" Tools: Plain Screw-drivers, Ratchet Screw-drivers, Ratchet Breast, Hand, Chain and Bench Drills, Ratchet Bit Braces, Automatic Push Drills, Vises with removable base, etc.

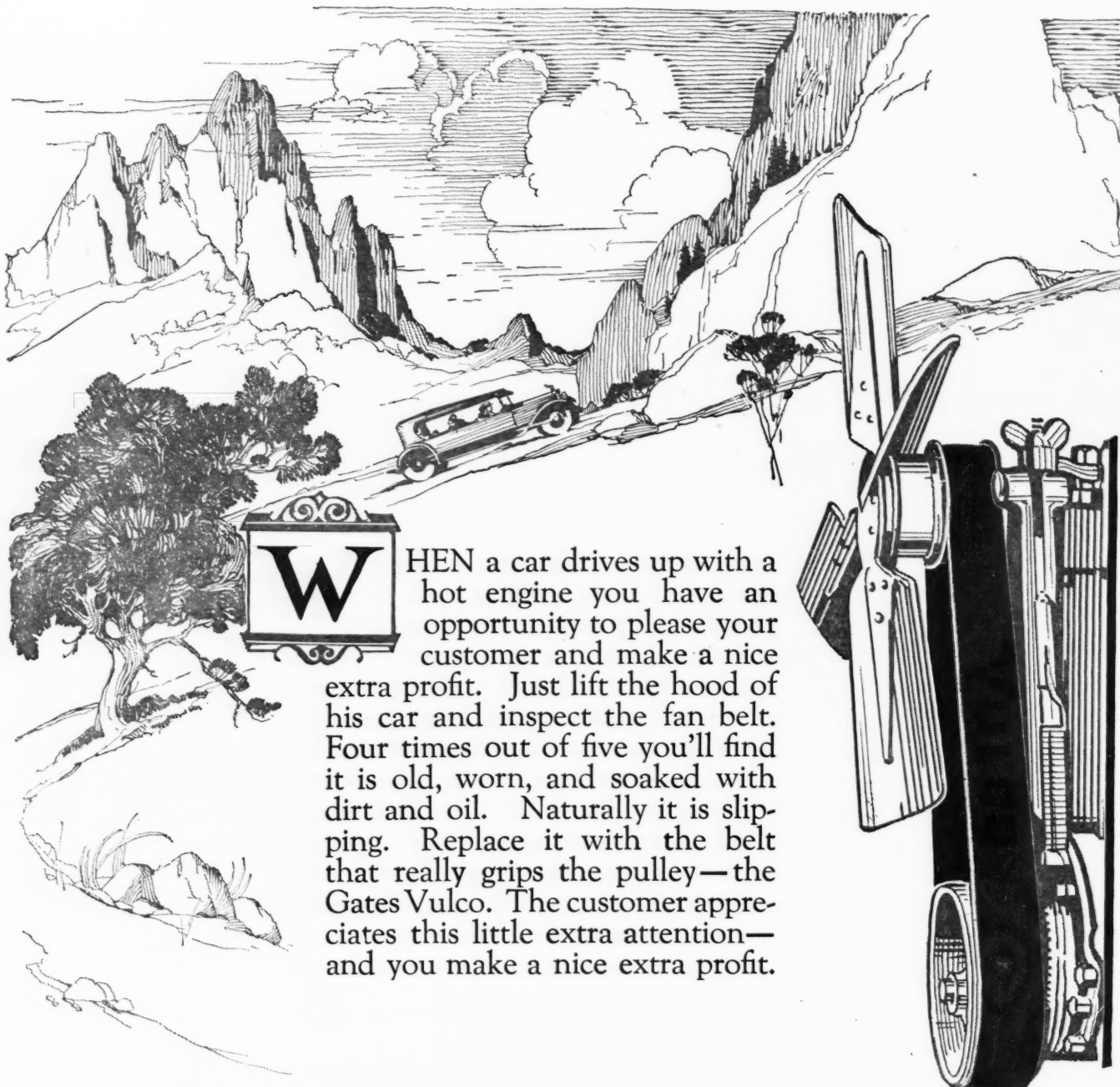
FREE

New "Yankee" Tool Book

This interesting little book is for all lovers of fine tools. It tells just what you want to know about all the famous "Yankee" Tools for making work easier and quicker.

Dealers Everywhere Sell "Yankee" Tools

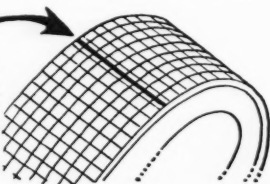




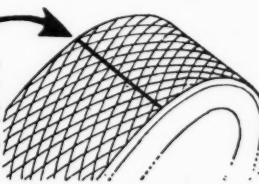
WHEN a car drives up with a hot engine you have an opportunity to please your customer and make a nice extra profit. Just lift the hood of his car and inspect the fan belt. Four times out of five you'll find it is old, worn, and soaked with dirt and oil. Naturally it is slipping. Replace it with the belt that really grips the pulley—the Gates Vulco. The customer appreciates this little extra attention—and you make a nice extra profit.

It's Gates Patents That Make Vulco Belts Hard To Break

Ordinary fan belts are plain weave. The threads in the belt run lengthwise and across. To break this belt on the marked line only the lengthwise threads need be broken.



In Gates Vulco Belts threads run diagonally. Twice as many threads must be broken to break this belt—that's why it resists breaking twice as long. This bias weave construction is a Gates patent.



"The Standardized Fan Belt"

GATES VULCO BELTS

"Made By The World's Largest Manufacturers of Fan Belts"

for Economical Transportation



Announcing the **Imperial Landau** *at a new low price*

A spectacular price reduction due to a spectacular public acceptance!

With the Imperial Landau, Chevrolet dealers are able to supply a widespread demand for a low-priced car that combines notable style and individuality with power, speed, economy and handling ease.

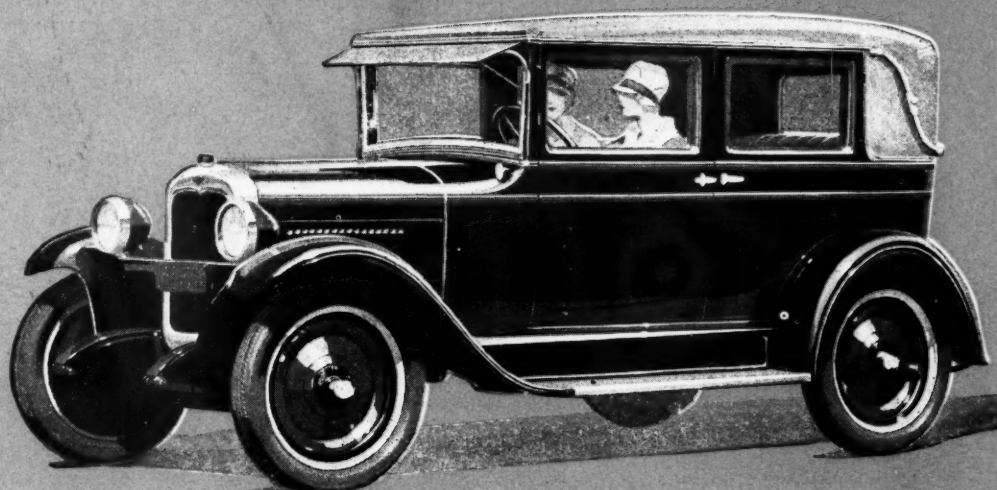
Beauty of line and elegance in appointment—an air of fleetness and

distinction which bespeaks modern design—

—these are qualities that all motor car buyers are demanding today more than ever before.

—one of the outstanding reasons why the Chevrolet dealer franchise has become one of the soundest and most desirable in the entire automotive industry.

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN
Division of General Motors Corporation



The Imperial Landau now only \$745 f. o. b. Flint, Michigan
Former Price \$780

Long, low, sweeping lines. Satin black Duco finish with embellishments of a beautiful shade of cream. Mouse gray top. Such interior appointments as special upholstery, vaulted roof, period hardware, built-in smoking set and maroon leather wind laces around the doors. A car of marvelous smartness at a marvelous price!

Q U A L I T Y A T L O W C O S T

STEEL *wood* & *wire*

A famous car is rid of 100 pounds of unsprung weight, through use of the latest Distel wheels. Their beauteous concave-conical section is the basis of the greatest strength-for-weight ever known in wheels.

This typifies the most recent Motor Wheel attainments:

- The perfected, permanently rigid wood wheel, demountable at the hub
- The line of completely interchangeable wood, steel, and wire wheels
- The still further betterment of Motor Wheel wood and steel wheels for demountable rims.

MOTOR WHEEL CORPORATION
LANSING · MICHIGAN
World's Largest Wheel Builder

Motor
Wheel

